CGSC STUDENT TEXT 101-5

COMMAND AND STAFF DECISION PROCESSES

U.S. ARMY COMMAND AND GENERAL STAFF COLLEGE
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U.S. ARMY COMMAND AND GENERAL STAFF COLLEGE
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THE TACTICAL DECISIONMAKING PROCESS

NOTE: The words "he" and "his" used in this publication represent both the masculine and feminine genders unless stated otherwise.

'This publication supersedes ST 101-5, Feb 95.

PREFACE

Teaching the decisionmaking process is a responsibility of the Command and General staff College; therefore, the College has prepared this student text (ST) as a interim guide to teach resident corps, division, and brigade tactical operations. This ST is fully compatible with Army operations doctrine contained in the new FM 101-5, *Command and Control for Commanders and Staff* to be published in 1996.

This ST includes extracts of the most current draft materials available at the time of publication. Since the materials are in draft form, the user must realize that many concepts, techniques, and procedures will undergo further refinement-the draft materials are evolutionary in nature.

Chapter 1 of this ST describes the decisionmaking process and its current composition as taught by the College. Chapters 2 through 7 deal with principles more specific to the procedures used throughout the CGSC curriculum. The text concludes with helpful appendixes for specific applications.

To keep the ST current and helpful, the Center for Army Tactics (CTAC) encourages au faculty and student to recommendations for changes to:

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U.S. Army Command and General Staff College
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REFERENCES

FM 6-20	Fire Support in the AirLand Battle, May 88
FM 6-20-10 (Final Draft)	*Tactics, Techniques, and Procedures for the Targeting Processs,* Mar 90
FM 34-3	*Intelligence Analysis,* Mar 90
FM 100-5	*Operations,* Jun 86
FM 101-5-1	*Operational Terms and Symbols,* Oct 85
FM 101-10-1/2	*Staff Officers' Field Manual: Organizational, Technical, and Logistical Data Planning Factors (Volume 2),* Oct 87
JP 1-02	*Department of Defense Dictionary of Military and Associated Terms,* Mar 94
ST 101-6	*G1/G4 Battle Book,* Jun 96
	Patton, George S., Jr. *War As I Knew It,* Riverside Press, Cambridge, MA, 1947.

CHAPTER 1

TACTICAL DECISIONMAKING

l-l. INTRODUCTION

Successful military operations rest on the principles of undivided responsibility, readiness to give and accept orders, and intent of- two levels up to meet the mission requirements of the total organization. This concept can work only if the entire chain of command has a common understanding of doctrinal principles, a working tactical standing operating procedure (SOP), and a logical working thought process for examining the possibilities of the battlefield.

1-2. BATTLE COMMAND

Battle command is the ability to envision the activities over time and space necessary to achieve an end state, translate and communicate that vision into a brief but clear intent, formulate concepts, and provide the force of will through the presence of leadership throughout the battlefield that will cause the concentration of overwhelming combat power at the right time and place to win decisively with minimal friendly casualties. It includes the components of both command and control. Command (fig 1-1) is the art of war within the domain of the commander; control (fig 1-2), as the science of war, is within the purview of the staff.

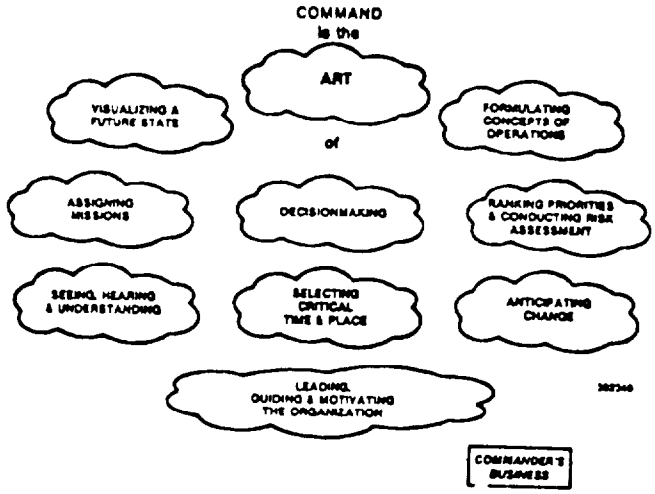


Figure 1-1. Command is an art.

a. Command and control. Command includes receptiveness to information, cognitive abilities to process the information, staff and commander analytical skills, visualization of future states, formulation of concepts of operations, selection of critical times and places, ranking tasks in priority, risk assessments, decisionmaking, and the assignment of missions. The commander uses these aspects to lead, guide, and motivate the organization toward mission accomplishment. Command is separate and distinct from control.

Control connotes the science of monitoring statuses; identifying variances from initial calculations; correcting deviations from guidance; computing requirements; and measuring, analyzing, and reporting performance. Control is largely within the purview of staffs. Unlike command, control is a more empirical process.

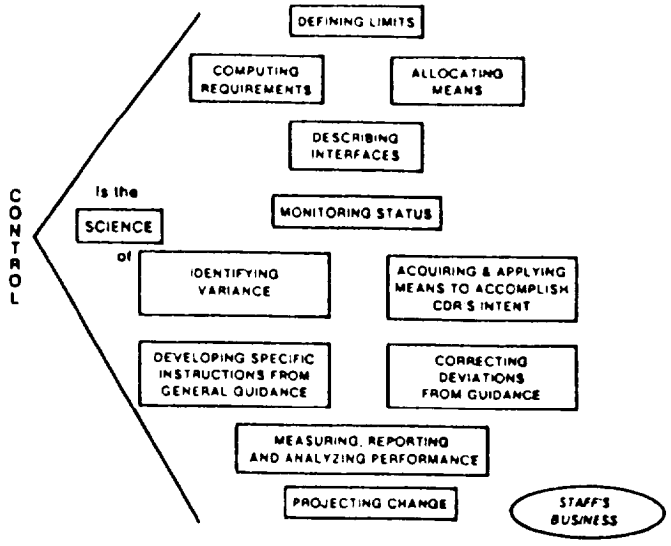


Figure 1-2. Control is a science.

b. Tactical decisionmaking. The tactical decisionmaking process (TDMP) is a three-method process that fosters effective analysis by enhancing application of professional knowledge, logic, and judgment. The methods are deliberate decisionmaking, combat decisionmaking, and quick decisionmaking.

1-3. THE TACTICAL DECISIONMAKING PROCESS

The Army has traditionally viewed military decisionmaking as both science and art. Many aspects of combat operations, such as movement rates, fuel consumption, and weapons effects, are quantifiable. Therefore, the Army considers them to be part of the "science" of war. However, the Army cannot quantify other aspects-the impact of leadership, the complexity of modern operations, and uncertainty regarding enemy intentions.

a. The commander. A commander must continually face situations involving uncertainties, questionable or incomplete data, or several possible alternatives. As the primary decisionmaker, he, with the assistance of his staff, must not only decide what to do and how to do it, but he must also recognize if and when he must make a decision. How he arrives at a decision is a matter of personal determination; however, superior decisions (those which offer the best solution available at the decisive time) result from a commander's thorough, clear, and unemotional analysis of facts and assumptions. His analysis, coupled with his experiential "feel" for the battle, are the bases for his decision.

b. Steps of decisionmaking. A systematic approach to decisionmaking, which fosters effective analysis by enhancing application of professional knowledge, logic, and judgment, consists of six broad steps:

Step 1. Recognize and define problems.
Step 2. Gather facts and make assumptions to determine the scope of and the solution to problems.

Step 3. Develop possible solutions.
Step 4. Analyze each solution.
Step 5. Compare the outcome of each solution.
Step 6. Select the best solution available.

These steps are the foundation of tactical decisionmaking. As applied to the Army's warfighting mission, they have evolved into what is now called the estimate of the situation,

c. Estimate of the situation.

(1) *Definition.* Joint Publication 1-02, page 79, defiles the commander's estimate of the situation as "a logical process of reasoning by which a commander considers all circumstances affecting the military situation and arrives at a decision as to the course of action to be taken in order to accomplish his mission." It consists of four essential steps:

Step 1. Mission analysis.
Step 2. Course of action development.
Step 3. Course of action (COA) analysis (including a comparison of COAs).
Step 4. Decision (or recommendation).

This estimate procedure is a logical and methodical process; it is conductive to collecting and analyzing information for developing the most effective solution to tactical problems given the time and information available.

All battlefields require commanders to make and execute decisions faster than the enemy. Therefore, the commander must always strive to optimize time available. He must not allow the estimate process to become inordinately time consuming. Consequently, the estimate process must be-

- *Flexible.* Commanders can abbreviate or modify the process to accommodate the situation and the time available. (This applies throughout the entire operation.)

- *Comprehensive.* The estimate process must consider both the quantifiable and intangible aspects of military operations. It requires the translation of friendly and enemy strengths, weapons systems, training, morale, and leadership into combat capabilities. The estimate process also requires a clear understanding of weather and terrain effects and an ability to visualize the possible flow of battle. Its purpose is to rapidly determine the possibilities while identifying items for more detailed analysis.

- *Continuous.* The demand on the command and control (C^2) system is continuous rather than cyclical. There are no fixed starting or stopping points. The commander and staff must constantly collect, process, and evaluate information. Estimates are continuously revised as factors affecting the operation change, as new factors are recognized, as assumptions are replaced by facts or rendered invalid, or as changes to the mission are received or indicated.

- *Focused on the future.* Doctrinal emphasis is on making decisions which influence the outcome of battle and which result in seizing initiative. Statistical recordkeeping is of little value.

(2) *Responsibilities.*

(a) Commander. Although both the commander and staff prepare the estimate of the situation, it lies first and foremost in the commander's mind. He prepares the commander's estimate (either mentally

or in writing) while continuing to collect and analyze mission, enemy, troops, terrain and weather, and time available (METT-T) as well as all other relevant factors which could affect the mission. He integrates his personal knowledge of the situation, his assessment of his subordinate commanders, any ethical considerations, and any relevant details gamed from his staff. Analysis and subsequent comparison of developed COAs helps determine the best COA to accomplish the mission such as force protection and resources available for mission execution.

(b) Staff. Staff members help the commander reach decisions by preparing staff estimates in their own fields of interest. They-

- Analyze how factors influence mission accomplishment.

- Consult with other staff officers and agencies to ensure their information is critical, relevant, and accurate.

- Present their estimates by oral presentation. (The estimate may also be in writing; however, the norm is to prepare notes and present them orally.)

(c) Staff estimates. Staff estimates are integral to the TDMP. They are designed to supplement the commander estimate within the staffs respective areas of expertise to provide the commander with a potentially more thorough examination of the critical factors affecting his mission which he can readily synthesize into his own estimate. Staff estimates also form the basis for staff annexes to orders and plans. There are several types of staff estimates.

1. The *personnel estimate* analyzes personnel and administration factors on soldier and unit effectiveness during the mission. From this estimate and its recommendation, the commander draws conclusions concerning troop preparedness, the feasibility of various COAs from the G1/S1 viewpoint, and the effects of each COA on personnel operations.

2. The *intelligence estimate* analyzes the enemy situation within the area of interest and the characteristics of the area of operations (AO) in terms of how they can affect the mission. The G2/S2 uses the intelligence estimate to pesent conclusions and make recommendations, as appropriate. These might concern the effect of the AO on friendly and enemy forces, the COAs open to the enemy and the probable order of their adoption; enemy strengths, capabilities, and vulnerabilities that the force can exploit; and the feasibility ofvarious friendly COAs.

3. The *operation (commander's) estimate* analyzes all of the factors that could affect the mission, determining all reasonable COAs and their effect on friendly forces. The plans/operations officer then recommends the best COA for mission accomplishment. The operation estimate and the commander's estimate use the same format and generally have the same content; however, the commander's estimate is not a simple compilation of individual staff estimates. It deals more with assessing the intangibles of leadership, morale, confidence of his subordinates and the horizontal synchronization of his command. The commander also uses his estimate as a cross-check of his staff's estimates. The commander's estimate culminates in a decision; the operations estimate culminates in a recommendation.

4. The *logistics estimate* analyzes logistics factors affecting mission accomplishment. Logisticians present their conclusions and make recommendations about the logic feasibility of the various COAs and the effects of each on logistic operations.

5. The *civil-military operations (CMO) estimate* analyzes the influence of CMO factors on mission accomplishment. The G5/S5 presents his conclusions and makes recommendations for the feasibility of various COAs from his perspective and the effects of each on civil-military operations.

6. *Other staff estimates* may be made by each special staff officer in relation to the situation and his field of interest. A staff officer may also make such estimates when performing dual roles, such as subordinate-unit commander and a special staff officer. In addition, he may make an estimate of a specific subject within his field of interest (as when the operations officer makes separate estimates for deception, operations security (OPSEC), or psychological operations (PSYOP).

1-4. THE DELIBERATE DECISIONMAKING PROCESS

The commander normally has enough time for detailed planning before hostilities occur, and he uses the military decisionmaking model (fig 1-3), a viable, sequential, planning procedure based on the estimate of the situation and its methodical, sequential accomplishment. The commander uses the staff's full strength and maximizes his own involvement in events. He gives guidance and makes decisions as the staff works through the procedure. The staff time to explore the Ml range of probable and likely enemy COAs as well as time to develop, analyze, and compare their own.

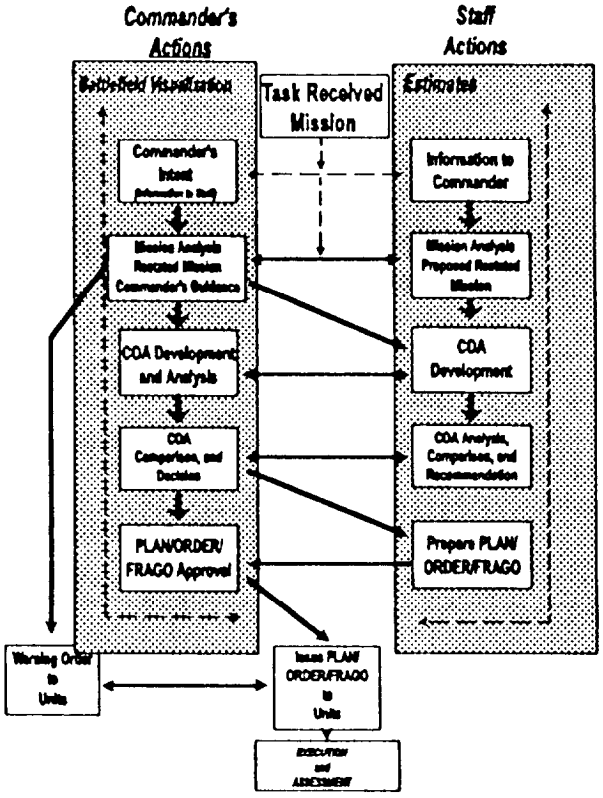


Figure 1-3. Military decisionmaking model.

This procedure also maximizes the commander's time to perform tasks other planning while at the same time maximizing the talents of his staff officers in their fields of interest. The commander can help the staff complete this procedure more efficiently through formal and informal briefings. Such interaction helps

the staff resolve questions they uncover during the procedure; however, regardless of the time available, the product's quality is still directly linked to how well both commander and staff perform its inherent steps.

Deliberate decisionmaking procedures also fulfill a planning requirement for minimizing risk through risk analysis. The commander performs risk analysis during-

- *Mission analysis,* where the staff identifies the enemy's center of gravity. At lower command levels, this may equate to the enemy's greatest vulnerability, which optimize the friendly comma&r's ability to produce the desired effect on the enemy.

- *Course of action development,* where the staff identifies and rejects COAs likely to result in mission failure, but retains for analysis those which the friendly force might be able to use to achieve its mission (minimizes risk of mission failure).

- COA analysis, where the staff examines ways to generate combat power and embed flexibility while minimizing loss of personnel and equipment (minimizing the risk of excessive losses to attain the mission).

The deliberate decisionmaking process (DDMP) usually begins with either receipt or deduction of a mission by the commander. The operation order (OPORD) a unit receives from its higher headquarters lists tasks the higher headquarters assigns to the unit. The concept of operation (or its subparagraphs containing tasks to subordinate units) lists the unit's major tasks. At times, a commander may determine on his own that his unit must perform certain battlefield tasks.

During the DDMP, the initial intelligence preparation of the battlefield (IPB) becomes a major activity. The staff conducts the battlefield area evaluation (including determining the AO with the G3/S3 and determining the area of interest), terrain analysis, and weather analysis. The G2/S2 also analyzes the enemy, determines its capabilities and vulnerabilities, prepares a situation template, and hypothesizes likely enemy COAS. The commander may focus his attention on these items while the remainder of the staff works with relative independence to assess friendly combat power and current deployment of subordinate and supporting units.

The DDMP also provides the most thorough approach available in constrained time environments. The DDMP arrives at an optimum solution to a tactical problem by analyzing in detail a number of friendly options against the full range of reasonable and available enemy options. The resulting plan then serves as an excellent and complete start point for later quick and effective adjustments as the command begins actual combat operations.

1-5. COMBAT DECISIONMAKING

The DDMP guides the decisionmaking process so the command arrives at an optimum solution to a tactical problem by analyzing a number of friendly options in detail against the full range of reasonable and available enemy options. The resulting plan then serves as an excellent and complete start point for later quick and effective adjustments as the command begins actual combat operations. However, once operations commence, a revised process is required. The fast tempo of the modern battlefield requires rapid, "close enough," acceptable decisions that allow the command to decide, move, and execute in the limited time available. This process is the combat decisionmaking process (CDMP).

a. Similarities between the deliberate and combat decisionmaking processes.

(1) Both processes represent the coherent mental activities that support sound decisionmaking. They both include the logical identification of the mission, development of concepts for executing the mission, evaluation of the concepts, and communication of the decision in a clear, concise manner.

(2) The commander is the prune mover in both processes, and both are part of the tactical decisionmaking process.

(3) Both processes allow for adjustment to the reality of the situation, and neither is a rigid, lockstep approach to decisionmaking.

b . Differences between &liberate and combat decisionmaking methodologies.

(1) The DDMP stops after a COA is developed into a plan or order. The CDMP is ongoing; its goal is to maintain the initiative.

(2) The DDMP is baaed on assumptions; the CDMP reflects real-time events.

(3) The DDMP is primarily a sequential set of actions with discrete points in the process where decisions are made or additional guidance is given. The CDMP is characterized by continuous planning for future events baaed on the commander's assessment of the outcome of the situation.

(4) In the DDMP, multiple COAs are analyzed against the full range of enemy options. In the CDMP, a single concept is normally evaluated against a limited number of or a single most probable enemy COA. Although not restricted to one COA, the commander’s continuous involvement in the CDMP supports the development of one friendly and enemy COA to be analyzed with branch and/or sequel option development.

(5) While the commander is the most critical player in both processes, the staff has more latitude for involvement in the DDMP. The staff receives the commander’s guidance or decisions at distinct points in time. They theat thoroughly gather, analyze, and synchronize the information before further input from the commander. The commander personally drives the CDMP through to execution with the input of his staff. His experience and expertise are critical as he continuously conducts his personal assessment, formulates concepts, and makes decisions.

(6) The DDMP results in a thorough, detailed plan that is essential as an effective starting point for the command as it enters operations, The CDMP staff then adjusts that plan to arrive at rapid, acceptable decisions concerning the situation at hand. The DDMP sets the force and conditions that are absolutely essential for the CDMP to work.

c . Concept, planning and/or preparation, execution, and assessment (CPEA) methodology The CPEA is a primary method of executing the CDMP. It focuses the commander’s and staff's activities on proactive actions to maintain the momentum of planning and to sustain the initiative. The CPEA is characterized by intuitive, creative, parallel, and sequential actions by the commander and planning staff.

In CPEA methodology, the commander and staff participate in three operations simultaneously: the current battle, the future battle being coordinated in detail, and its sequel being developed in concept form. (Division staff and higher are typically manned and equipped to conduct this CPEA methodology.)

The commander his staff to conduct continuous operations without the plans staff becoming

involved in current operations. If the commander cannot personally participate, he must identify key personnel who can continue CPEA functions.

All levels of command from battalion and higher follow the CPEA concept; however, brigade and lower seldom plan three operations simultaneously as do division and higher levels.

The commander makes personal observations as he moves on the battlefield, and he receives information he needs to visualize the of the battle (commander's critical information requirements (CCIR) and priority intelligence requirements (PIR)) firm his staff and senior and subordinate commander. He can continuously update his assessment of the current operation and make adjustments, by CPEA methodology, to the next event (branch or sequel).

Figure 1-4 is a graphic portrayal of the CPEA process. The goal of the commander's assessment is to anticipate the outcome of the current fight in order to begin considering future requirements and actions. He can commander has the responsibility to focus continuous planning on future outcomes-not just on current battles.

The commander uses assessment of the outcome of current operations as well as orders from higher headquarters to initiate the CPEA process. The commander's assessment reflects the outcome of the current battle only; however, it also provides a link to future planning. It consists of-

- A logical visualization of the current situation together with the expected battle outcome and future state of both friendly and enemy forces.

- A recognition of similarities and differences between the initial plan and the current and projected situation occurring during combat.

- A consideration of friendly force posture, enemy probable actions and or posture, and battlespace.

No matter where the commander is on the battlefield, he can perform his assessment relatively quickly if he receives accurate, timely, and continuous information and intelligence update. He can then easily compare his assessment to the original plan, including its branches and sequels. Commanders must be careful not to specify too much information as CCIRs, or the staff's chances of obtaining the right information will diminish; a rule of thumb is to set a limit of six questions. There are many possible CCIR questions from which to choose:

- Can the unit still meet the higher commander's intent?

- Where is the enemy?

- What is the enemy doing?

- How is the enemy doing what he is doing?

- Where are the friendly forces?

- What are friendly forces doing?

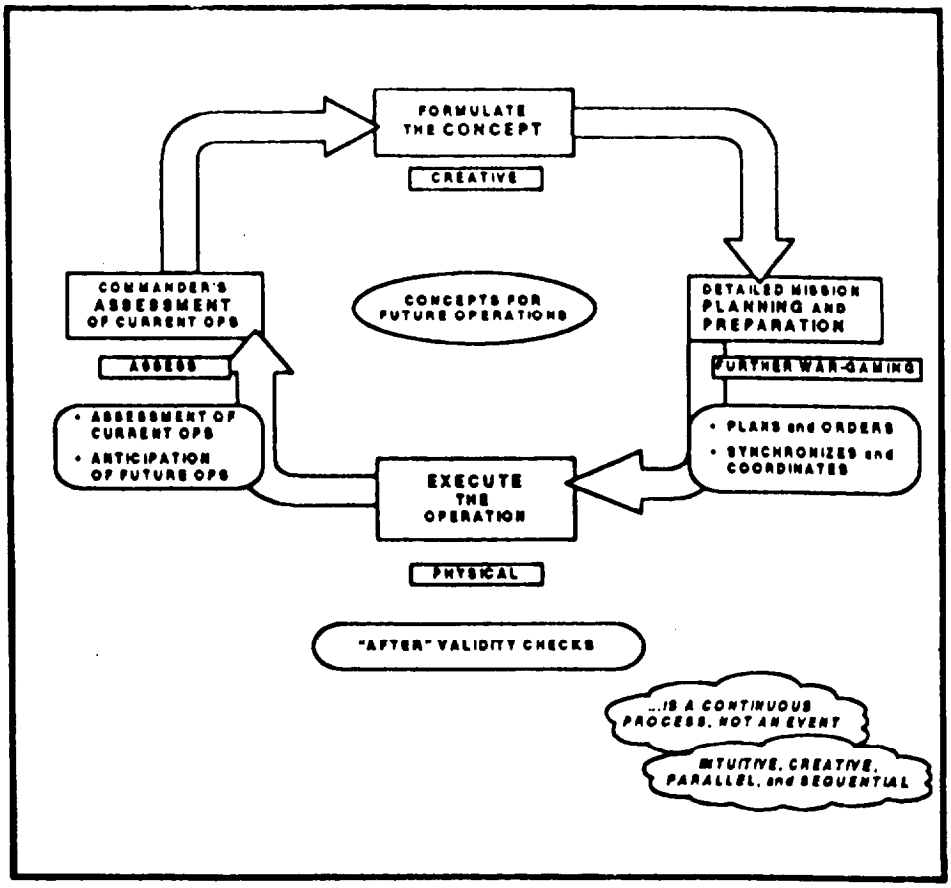


Figure 1-4. CPEA methodology.

- How are friendly forces doing what they are doing?

- What is the posture of friendly forces in the next planning time window (depending on the echelon of command; for example, corps-72 hours, division-48 hours, and so on)?

- Where are friendly forces expected to be in the subsequent time-planning period?

- What are the enemy's problems?

- How can friendly forces exploit the enemy's problems?

- What are the friendly force's problems?

- How can the friendly force correct its problems?

- What are the enemy's opportunities?

- What are the friendly face's opportunities?

- How can the friendly force exploit its opportunities?

- Are any changes needed to the friendly force's concept, task organization, or mission?

The original plan forms the basis for subsequent assessment. The commander considers the possibilities of future situations by using his intuition, the current situation monitored by the staff, his personal expertise, and a degree of creativity.

The commander's assessment provides a projection of what the outcome of the battle might be, considering the general disposition of forces with respect to terrain, losses, and combat potential of forces to conduct further operations. It results in one of the following conclusions:

- The base plan (formulated during the DDMP) meets the assessed situation.

- A branch of the base plan addresses the addressed situation.

- A new branch must be developed to address the assessed situation.

d Commander's concept formulation. To conduct concept formulation, the commander evaluates whether or not the base plan is proceeding according to the original concept of operations. Three options are available to the commander based on his evaluation:

(1) He can proceed with the original plan if his assessment shows that the situation is close to that which was originally projected. He and his staff can then verify the original plan and estimates and issue fragmentary orders (FRAGOs) for the appropriate modifications.

(2) He can proceed with modifications, if the future assessment does not match the original plan but does resemble the situation addressed by a developed branch. The commander can then select the branch which most closely resembles the projected future outcome and modify it.

(3) He can create a new concept more appropriate to the assessed situation than either the base plan or one of its branches. He can then initiate the suitability, feasibility, and acceptability analyses (similar to those the staff initiates during the DDMP) before deciding how to execute the formulated concept.

e. Suitability analysis. After formulating a concept or selecting a concept from an existing branch, the commander conducts a suitability analysis to determine if the concept meets the next higher commander's intent.

Suitability analysis is a part of the "art" of war because it primarily depends on the commander's knowledge and opinion. If it does, and it will also accomplish the unit's mission, the concept is deemed suitable and the commander issues a warning order. The concept should explicitly express-

- The commander's intent.
- The concept of operation, including major elements of maneuver for critical points in the battle and the integration of critical combat functions (fire support (FS), deception, aviation, deep operations, and so on) for that operation.
- Enemy COAs to be considered.
- Commander's critical information requirements
- Limitations.
- Risks.

f. Feasibility analysis. After the commander develops a suitable concept, he and his staff perform a feasibility analysis, which is a scientific and quantitative measurement of a concept. It correlates most closely to what is referred to as the "science" of war, because it primarily involves quantitative measurements. Initially, the plans staff conducts feasibility analysis to ensure the concept meets the criteria of time, space, and means. The staff determines the criteria by using the planning data available from historical and technical data combined with the subjective expertise of the staff and commander.

Time measurements are based on technical capabilities and historical data. They are used to calculate estimated event durations. Time is correlated to distances, speed and capability rates in order to project enemy and friendly actions and then determine if sufficient time is available to execute the concept as designed.

Space analysis includes measurements to ensure that adequate ground and air space exists to conduct operations. Using tables of organization and equipment (TOEs) and experience, the staff estimates such items as the area required to deploy units for the concept, determines road requirements, identifies depth requirements, and so on. The factors of METT-T dictate which space requirements are significant for a given concept.

Means analysis ensures that forces have the necessary combat power available to conduct operations. For example, the staff checks the relative force ratios at the critical events in the expected battle to ensure success of the main effort or quickly determines if enough bridging assets are available for a river-crossing operation.

If a concept is deemed inadequate in terms of feasibility, then the commander must modify it or select a new concept. He then conducts a new suitability check on the modified or new concept followed by appropriate feasibility checks. Once a concept passes suitability and feasibility analyses, the commander can analyze it for ability.

g. Acceptability analysis. Acceptability analysis, the last check the commander performs before approving a concept, considers the factors of acceptable risk versus the desired outcome consistent with the higher commander's intent and concept. It is also an intuitive "art," like suitability, and is based on experience, expertise, and a firm understanding of the current situation. It is part of the commander's "command function and allows him to determine if gains are worth expenditures and associated risks.

If the concept is acceptable, the plans staff publishes a FRAGO and then further coordinates and synchronizes the command's activities to ensure optimum execution.

h. Commander and staff checks. Accepted concepts are developed into plans and/or orders, but before putting the plans and/or orders into action, the commander and staff conduct validity cheeks to ensure that the plans and/or orders are still applicable to the current situation, They-

- Conduct and confirm estimates.
- Conduct a personnal analysis of the terrain.
- Assess the impact of battlefield conditions on current operations.
- Monitor preparation of the battlefield, which includes-

  -Sharing the results of reconnaissance.

  -Developing alternatives.

  -Supporting the morale of troops and leaders.

  -Confirming a adjusting the concepts.

  -Pacing themselves so they prepare for battle.

Validity checks save to prepare the commander and staff for battle and ensure that they can respond to changes in a flexible manner. If validity checks confirm the original decision, the command puts them into action. If not, the commander reassesses the situation and begins concept formulation again.

The CDMP is a streamlined process of sound decisionmaking designed to arrive at an acceptable solution in a timely manner. It uses the experience and expertise of the commander augmented by his staff to both monitor and control the current fight and anticipate the future battle in order to remain proactive in a dynamic, lethal warfighting environment.

1-6. QUICK DECISIONMAKING

Commanders sometimes need to make quick battlefield decisions. Quick decisionmaking is necessary for commander during situations whose time and/or staff is limited or who face an impending crisis. A

commander at high levels can also use quick decisionmaking when he does not have enough time to assemble a staff (such as when he is forward with his command group and an immediate change in the plan is required).

The commander bases his decisions on his analysis of METT-T factors, the war game, comparisons of feasible COAs, and his personal judgment. These, at times performed mentally, are also the central features of both the DDMP and the CDMP. The commander may execute the quick decisionmaking process in almost any sequence, with several actions occurring simultaneously, including-

- Receiving the mission.
- Issuing the warning order.
- Making a tentative plan.
- Starting movement.
- Conducting reconnaissance.
- Completing the plan.
- Issuing the order.
- Supervising and refining the plan.

a. Receiving the mission. The commander may receive a mission in the form of a written (automated) or oral warning order, OPORD, or FRAGO, depending on the situation and the urgency with which it must be dealt. The best situation for receiving the mission is for the commander to receive it in person from his higher commander. At lower command echelons, the higher commander should issue the order while overlooking the ground where the operation will take place. At higher commander echelons, the higher commander typically relies on maps, sketches, or terrain models, or simply issues it at a convenient command post. In situations when this is not possible, the higher commander may issue the order over the radio.

NOTE: No matter how a commander receives the mission, he must have a clear understanding of the intent of the commander two echelons above.

At times, a leader may deduce a change in mission, based on a change in the situation. Once an upcoming mission is identified forces begin preparing for action. The commander conducts an initial METT-T analysis to determine the requirements for his warning order. He then sets his time schedule by identifying the actions the unit must take (time-critical tasks) to prepare for the operation. A preliminary consideration of the information on METT identifies these preparatory actions.

The commander conducts an initial reconnaissance (or a map reconnaissance) to allow a fuller understanding of the mission's time requirements. He then develops his time schedule by starting at "mission time" and working backward to the time it is now (reverse planning). The mission time is normally the most critical time in the operation.

The commander must ensure that all subordinate echelons have sufficient time for their own planning needs. A general rule of thumb for leaders at all levels is to use no more than one-third of the available time

for planning and issuing the OPORD. This will leave the rest of the available time for subordinate leaders to use for their planning and preparation. The time spent in deducing and under standing the commander's intent saves hours latex.

The commander must consider the time available for planning, preparing, and executing operations for both enemy and friendly forces. Commanders must enforce the time plan. The goal is to give subordinate units enough time to conduct planning, reconnaissance, and preparation before beginning combat operations. It does more harm than good to present a "perfect" plan to subordinate units if they do not have the time to disseminate their own orders and to make preparations. A late plan cannot be executed.

b. Issuing the warning order. Warning orders (WOs) are partial orders which commanders issue to gain time. They are critical to effective parallel planning. Warning orders use the OPORD for-mat and contain the best available data on hand. Routinely, a warning order is updated as needed as new information becomes available. The WO makes subordinate commanders aware of the next operation, enabling them to update their estimates and begin preparation, for combat A clear warning order saves time and focuses planning efforts. This normally involves a number of standard actions which the SOP should address. The warning order covers items that the unit must do to prepare for the mission but are not in the SOP Specific content for each warning order varies according to the unique character of each tactical situation The commander usually sends warning orders by field phones or by radio, they must be acknowledged.

c. Making a tentative plan. Tentative plans are the basis for the OPORD. Leaders use the commander's estimate of the situation to analyze METT-T information; develop, analyze and compare COAs; and make a decision that products a tentative plan. The leader continuously updates his estimate and refines his plan accordingly. He uses this plan as the starting point for coordination, reconnaissance, task organization (if required), and movement instructions. He works this problem through in as much detail as available time allows. The leader focuses on the following METT-T factors as the basis of his estimate:

- *Mission.* The leader considers the mission given to him by his commander, analyzing it in light of the commander's intent two levels higher, and deriving from it the essential tasks his unit must perform to accomplish the mission.

- *Enemy.* An analysis of the enemy includes processing current information concerning the enemy's strength, morale, organization location, disposition, tactics, activity, equipment. and capability. He should also attempt to identify the enemy's threat to his mission as well as the enemy's greatest vulnerability.

- *Terrain and weather.* Analysis details information about vegetation, soil type, hydrology, climatic conditions, and ambient light data to determine the impact the environment can have on current and future operations for both enemy and friendly forces. Of particular concern are potential effects on observation, intelligence collection, and target acquisition and engagement resources available.

- *Troops.* An analysis of troops gives the commander information on the quantity, level of training, and psychological state of friendly forces, including the capabilities of attached elements, as he assigns tasks to subordinate units. It also gives him information on the availability of weapons systems and critical equipment.

- *Time available.* The leader analyzes time to determine how much is available, how it should be allocated, and how it will affect C^2. Time analysis produces a schedule of activities that must occur. Since it drives everything the unit does, the commander personally approves this schedule.

When the commander completes his detailed analysis of the mission, he formulates his intent statement and deception objective, if appropriate. A commander with a staff would then issue his planning guidance. At lower command echelons where no staff is authorized, this step is omitted. During crisis situations, the commander may issue initial controlling instructions at this time.

The commander next develops the situation and the COAs, taking into account METT-T, with emphasis on the enemy situation and probable COAs and the friendly situation and disposition of forces. When developing COAs, the staff typically develops several COAs based on commander's guidance. During a crisis or when a commander does not have a staff, he completes this process mentally.

The commander then analyzes each COA. During the war game, he mentally explores the options for deploying and employing his force to achieve his mission, consistent with his commander's intentions. He begins his analysis by asking, "Where do I achieve (end) my mission?" He then typically war games his force's actions in reverse sequence from the end of the operation back to its beginning. He makes notes of the friendly unit's task organization, dispositions, maneuver, fires, and the information he needs to achieve success at each decision point. He then rechecks his reverse planning by "running through" the events in the sequence in which he expects them to occur. He then compares COAs and selects the one that is the most flexible and which will best achieve the mission and the deception objective, if applicable.

When preparing a tentative plan during quick decisionmaking, the commander, regardless of command level, essentially completes those steps inherent in the DDMP; however, he may not necessarily complete those steps in the prescribed sequence, in like detail, or with equal formality.

d Starting movement. Movement begins as soon as possible to position the force to execute the mission in accordance with the tentative plan. The longer the march to the AO, the more critical it is the movement begins early in the planning stage. The commander can often move his unit at the same time he is receiving orders from his higher commander. When possible, the commander designates his chief of staff (CofS)/ executive officer (XO) to move the force while he continues to plan and conduct reconnaissance.

e. Conducting reconnaissance. The commander must first focus his reconnaissance to confirm the tentative plan and then gain the information he needs to execute branch plans. Reconnaissance demands careful planning. The commander must issue specific instruction to each of his subordinate leaders, specifying-

- Known, suspected, and likely enemy locations.
- Orientation and location of reconnaissance objectives.
- The information they must gather at reconnaissance objectives.
- Routes between reconnaissance objectives.
- A time and place where they will meet to discuss the results of their reconnaissance.

If possible, commanders at lower command echelons should meet with subordinate leaders where they can overlook the AO. At higher command levels, reconnaissance may well include the results of available intelligence collection and preparation efforts.

f. Completing the plan. Once the commander has analyzed his tentative plan, he must war game any changes based on reconnaissance which would alter facts and assumptions. He confirms task organization; develops branches to selected COAs; completes surveillance, FS, combat service support (CSS), communications, and control measures for operations', and reviews his decision support template (DST).

g. Issuing the order. The ideal OPORD is simple, clear, and issued in time for subordinate commanders to fully brief and rehearse their missions with their subordinates. The friction of battle quickly eats away available planning time. Therefore, the order format the commander selects can help him effectively use time. Orders issued with or on an overlay provide subordinates with an effective means of synchronizing major portions of the operation. Oral orders without overlays are extremely difficult to synchronize and execute.

If possible, the commander should issue his order from a vantage point overlooking the AO. If this is not possible, he should use visual aids such as terrain models or sketches to help clearly explain his plan. (Maps are sometimes difficult to use because of their size and the number of persons to be briefed.) Because of time constraints, the commander may need to issue his order verbally or by automation from his location on the battlefield or from a command post.

After issuing the order, the commander has his subordinate commanders orally confirm the plan to himself and key members of his staff, especially FS officers. This brief is the commander's final check to ensure clear understanding of his intent. It also allows him to war game possible enemy reactions or counteractions to enemy reactions.

If possible, each subordinate commander should actively observe his counterpart's confirmation brief, This ensures that each subordinate commander knows the entire plan. This, in turn, leads to improving the agility and synchronization of the plan during execution. It also increases each subordinate commander's ability to successfully complete the mission if the commander becomes a casualty.

h. Supervising and refining the plan. The commander and his staff must supervise and inspect preparation before combat. Preparations should include counterreconnaissance, coordination, reorganization, FS, engineer activities, maintenance, resupply, and movement. Rehearsals should include both maneuver and fire plan activities. Commanders above the company level must emphasize supervision of items requiring coordination between units of the same size.

Reconnaissance information could cause the plan to change. Therefore, tactical planning must orient on the enemy. This means that a commander must do whatever it takes to discover the enemy's location and intentions. The size and composition of the friendly reconnaissance effort must be a METT-T decision. Reconnaissance must k a central part of the plan. If the unit's reconnaissance force is not sufficient to accomplish the reconnaissance mission the commander must reinforce it with other units. The focus of reconnaissance is to gain critical information which will help the commander best accomplish his mission. Reconnaissance helps the commander determine if he must abandon his main plan, and, if so, which branch plank should then use.

Once the battle begins, the commander must make decisions that will give his force an advantage over the enemy. If communications are interrupted, subordinates must act without active supervision, using their best judgment and understanding of the commander's intentions. To do nothing when the situation demands action is a sure way to surrender the initiative to the enemy.

1-7. STAFF SYNCHRONIZATION

The challenge facing the comma&r and his staff in implementing Army operations, with its emphasis on initiative, agility, depth, versatility, and synchronization, is the generation of overwhelming combat power focused against the enemy's center of gravity. The potential of forces, resources, and tactical opportunity requires conversion into actual capability through violent and coordinated action concentrated at the decisive time and place. Superior combat power is generated through a commander's skillful combination of the elements of maneuver, firepower, protection, and leadership in a sound plan forcefully but flexibly executed.

To achieve this end, the commander, through his CofS/XO, must use every resource (philosophy, personnel, facilities, and procedures for command and control) to generate overwhelming combat power.

a. Chief of staff/executive officer synchronization responsibilities. It is physically impossible for the commander to guide and supervise staff planning and to personally lead and supervise the planning and execution of both current and future operations. Therefore, he must rely heavily on the CofS/XO to direct (command) the staff in his behalf. The CofS/XO is the most important and influential member of the commander's staff. He merits the commander's full trust, confidence, and support. But this reciprocal relationship presupposes that he explicitly understands the commander's personality, style, and instincts as they affect the commander's intentions. The CofS/XO must be able to anticipate battlefield events and share with the commander a near-identical vision of the battle and its events and requirements. He must understand the commander's intent at least as well as the subordinate commanders do, and he must be able to correctly anticipate the commander's though and concerns. The CofS/XO must base his direction of the staff on near-identical images shared with the commander which result in decisions similar to those the commander would make if he were present. There is great value in a close relationship between the commander and the CofS/XO.

The CofS/XO's authority and standing (during deliberate decisionmaking) has the commander's tacit approval and applies uniformly to both coordinating and special staff officers. The CofS/XO is foremost a warfighting plans integrator, but he is also a crisis manager, adjudicator, and administrator.

As a warfighting plans integrator, the CofS/XO's specific responsibilities include-

- Operating the C^2 BOS.
- Organizing, synchronizing activities, and displacing command posts as necessary.
- Directly supervising the main CP.
- Directing the main CP headquarters cell.
- Synchronizing the activity of the main CP through the coordinating staff, specifically ensuring the integration of the activities of current operations, plans, intelligence, FS, and CSS cells. In the absence of the commander, and in close coordination with the FSCOORD, who provides personnel and technical expertise, the CofS/XO may head ad hoc targeting, deep, and other cross-FLOT planning cells.
- Ensuring the integration of deception pluming and fratricide countermeasures into the plan.
- Managing CCIR.
- Determining liaison requirements, establishing liaison information exchange requirements, and receiving liaison teams.
- Establishing and enforcing the time plan in accordance with commander's guidance.

The CofS/XO assists the commander with control of subordinate units so they can optimize preparations for future employment. He monitors combat readiness status and directs actions which posture subordinate units for employment by the commander. Under special conditions or missions, the commander may give the CofS/XO temporary command of a portion of the force (such as in deployments, retrograde operations, or crossing obstacles or when the commander and deputy or assistant commanders are unable to command).

The CofS/XO is the commander's principal assistant. He uses the staff and command posts to develop the commander's guidance into synchronized future plans, publishing and issuing the plans as orders to appropriate units.

b. Command posts. Command posts (CPs) provide the commander with a grouping of C^2 facilities for planning, directing, coordinating, and controlling forces and operations. These facilities include the command posts, the people who man them, and the communications, automation, and other equipment that supports them.

The tactical (TAC) CP provides a forward command post, the main CP is the primary C^2 facility for the echelon, and the rear CP is for rear operations. Typically, the TAC CP controls close operations; the main CP controls deep operations, plans future operations, and serves as the primary synchronization point for the &ire battlefield; and the rear CP controls rear operations.

In addition to echelonment of functions and information flow between CPs, the CofS/XO is responsible for the staffs continuous estimate and planning activities. Like the echelonment of command posts, the development and transfer of plans from inception to execution is the CofS's/XO's responsibility.

Within the DDMP, mission analysis overlaps with COA development, COA development with COA analysis, and so on. The staff must always look for application of information in future phases of an operation or in future operations themselves. At the same time, planning functions for the current operation overlap with those for the future operation. Therefore. planning, directing, coordinating and controlling are continuous functions. It is the CofS's/XO's responsibility to coordinate the staff so functions flow as smoothly and as efficiently as possible between ceils, from staff to subordinates, to higher and adjacent units, and between command posts. Again, the CofS/XO must coordinate the staff so planning efforts flow in a smooth and timely way from the staff to subordinates, to higher and adjacent units, and to the appropriate command post.

The CofS/XO decides and implements the technique the staff will use to get plans through the staff and into the hands of commanders. Typically, the current operations cell completes coordination begun by the plans cell by using one of the following methods:

(1) *The time or event method.* The CofS/XO specifies when the plan will transfer from the plans cell, to current operations cells, to the TAC CP. The plans cell completes the plan through the COA decision brief and prepares the WO for release. The plans cell also coordinates and prepares the order for issue and provides an information briefing to the current operations cell before the operations cell assumes responsibility for issuing and monitoring the execution of the order.

(2) *The liaison method.* One or more planners stay with the plan (as action officers) from inception (mission analysis) through execution.

Close and deep operations routinely use some of the same forces (such as intelligence, FS, AD, air, and so on). Prioritizing activities (where and when they will have the greatest effect on mission attainment) is an important part of any plan. The staff must analyze activities in detail during the war game and then recommend to the commander a task organization or organization for combat which would maximize the plan's flexibility and which would enable the commander to rapidly adjust activities as the situation requires.

The commander, his deputies or assistant commanders, the CofS/XO, the coordinating staff, and subordinate commanders must explicitly understand who's in charge of what, where, when, and for how long.

They must also understand CSS relationships and the communications means to be used. The CofS/XO must ensure that plans encapsulate these features to facilitate command and control within the entire command.

c. Synchronizing the deliberate decisionmaking process. To be effective, deliberate decisionmaking must be a total staff effort with one objective-to collectively mesh information and intelligence with sound tactical and technical competence, producing flexible plans. This, in turn, will enable the commander to consistently make better decisions than he could without his staff.

The CofS's/XO's three principal responsibilities are-

- Time planning.
- Command post and staff integration in tactical decisionmaking procedures, producing a robust ad flexible plan.
- Combat-information management.

The purpose of time planning is to optimize the available time commanders have for planning while preserving time for subordinate commanders' planning requirements and for combat preparations. Time planning begins with an assessment of the time required to conduct the planning stages and produce required information products, modified by any identified variables. Planning stages are useful points at which to identify information needed to begin a specific stage as well as identifying what information must be produced.

Guidelines for developing the time plan are based on assumptions and approximate time planning factors the CofS/XO applies to the situation. The CofS/XO considers-

- The time each echelon needs for planning and combat preparations. (Rules of thumb, such as 1/3-2/3 or 1/5-4/5, are useful only as a starting point.)
- The minimum time needed to complete tactical decisionmaking procedures.
- The time (expressed as a percentage of available planning time) required to complete the DDMP.
- The division of labor between the G3/S3 plans and operations cells.
- The handoff of orders between the main CP and TAC CP.

Variables considered for adjusting planning guidelines include-

- Mission execution time, which determines available time.
- The amount and accuracy of information from higher headquarters.
- Comma&r's guidance (planning procedure, order format and issue time, and rehearsal technique), which determines available planning time.
- The relationship of the new operation to the current operation.

- The complexity of the new operation.
- The availability of intelligence.
- Ambient light requirements.
- The time needed for reconnaissance.
- The time needed for coordinating support.
- Staff experience and cohesiveness.
- The level of rest and stress in the staff.
- Risk assessment and risk management.

The CofS/XO must ensure staff integration in the tactical decisionmaking process. To integrate the commander's intent and concept of operation, deception, fratricide countermeasures, and C^2 into the planning process, the CofS/XO must thoroughly know-

- Tactical decisionmaking procedures (such as what information each coordinating and special staff section needs and when it will be needed); specific information for each operation (terrain and weather effects, intelligence collection, deep operations, A^2C^2 planning, fires, combat power status, status of reserve, tactical combat force and uncommitted forces); and the impact of CSS shortfalls on current and future operations.

The enemy force's peculiarities, tendencies, and vulnerabilities as well as the means and procedures by which the enemy commander gathers and analyzes intelligence.

- Doctrinal terms and symbols.
- Strengths and limitations of automation, communications, and liaison.
- Targeting.

To produce a robust and flexible plan, the CofS/XO must ensure-

- The integration of the commander's intentions, deep and deception operations, and fratricide countermeasures.
- That CCIR are identified.
- That the plan remains valid as changes to facts and assumptions occur.

1-8. TARGETING AND THE TACTICAL DECISIONMAKING PROCESS

Targeting is defined as the process of identifying enemy targets for possible engagement and determining the approximate attack system to use to capture, destroy, degrade, or neutralize the target in question. Targeting is a process. It involves many actions to select the targets essential to the success of the friendly mission. Targeting also determines the best mix of sensor systems and attack systems, both lethal and

nonlethal, to acquire and attack essential targets. The objective of the targeting process is to disrupt, delay, or limit enemy capabilities which could interfere with the success of friendly objectives.

a. HVTs and HPTs. A high-value target (HVT) is a target whose loss to the enemy can be expected to contribute to substantial degradation of an important battlefield function; it is an asset that the enemy commander requires for the successful completion of his mission. High-payoff targets (HPTs) are HVTs which, if successfully attacked, contribute substantially to the success of *friendly* plans. The key to HPTs is that they are based on the friendly concept of the operation and support the friendly force commander's scheme of maneuver.

For example, engineer bridging assets are a HVT because they are critical to an enemy commander's ability to cross a river during an attack. If the friendly commander's concept of the operation is to defend along the river bank and prevent the enemy from forcing a river crossing, the bridging assets would likely be determined as HPTs. But, if the friendly commander's concept of the operation is to allow the enemy to cross the river and then counterattack while his force is split on the two sides of the river, these bridging assets would not be an HPT.

The development of HPTs from HVTs is done during the war-gaming process. For further information on HVTs and HPTs, refer to FM 6-20 or FM 34-3.

b. To *disrupt* means to break apart, disturb, or interrupt an enemy function. For example, the commander may desire to disrupt the enemy's ability to counterattack by targeting specific maneuver, FS, or C^2 targets essential for counterattacking, or he may wish to suppress, neutralize, or destroy individual targets.

To *delay* means to slow down the arrival of a unit on the battlefield. For example, the commander may desire to delay the army's ability to counterattack by targeting specific maneuver, FS, or C^2 targets essential to the counterattack, or he may wish to suppress, neutralize, or destroy individual targets.

To *limit* means to restrict the enemy's ability to pursue a particular COA. For example, if the enemy has three possible avenues of approach, the commander may desire to limit the enemy to only two, denying him the best approach.

The targeting process is a complex multidisciplined effort closely related to the tactical decisionmaking process. Targeting responsibilities exist among each of the battlefield operating systems (BOSs). The targeting process support the commander's concept of operations, including his scheme of maneuver and concept of FS, and requires an in-depth understanding of the mission, commander's intent, enemy, AO, and capabilities and limitations of sensors and attack systems. It is a team effort of the commander and his staff.

The commander and the entire staff must work together to synchronize all BOSs. The targeting process must include AF, Navy, and Marine support as well. Targeting is a joint and combined process. In addition to the commander, key staff agencies involved in targeting are the G3/S3, G2/S2, and the fire support coordinator (FSCOORD). Other staff officers, including the air liaison officer (ALO), air defense artillery (ADA) officer, engineer officer, and G4/S4 also support the targeting process.

c. Targeting methodology is described as decide, detect, deliver, and assess. See FM 6-20-10 for specific tactics and procedures for the targeting process.

(1) The *decide* function is critical. The commander and his entire staff play a significant role in this function. All officers have equal responsibility in coordinating requirements to support the process and making recommendations to the commander. The decide function establishes which targets the unit will acquire and attack and the concept for doing so, ensuring synchronization with the scheme of maneuver. The

decide function results in four products: HPT list, the intelligence-collection plan, target-selection standards, and the attack-guidance matrix. They are all included in the approval OPORD or OPLAN.

(2) The G2/S2 has the moat responsibility during the *detect* function. He controls the bulk of available intelligence-collection assets, disseminates information as appropriate, and supervises the execution of the intelligence-collection plan. The FSCOORD has some responsibility during the detect function because he controls employment of the FS countermortar and counterbattery radars (fire finders). He must ensure that information from fire-fader radars is passed to the G2/S2 to help complete the intelligence picture. To enhance information exchange between the G2/S2 and the FSCOORD, a field artillery intelligence officer (FAIO) acts as a liaison to the G2/S2 intelligence cell. This function occurs during execution of the OPORD.

(3) After the target is detected, target information is passed from the G2/S2 to the FS cell for attack. The FSCOORD has the moat responsibility during this *delivery* function; he is responsible for coordinating all lethal and nonlethal fire support for the commander. The G2/S2 also has some responsibility during the deliver function because he controls the systems which are capable of offensive electronic warfare (EW). The G3/S3 electronic warfare officers (EWO), G2/S2, and FSCOORD coordinate use of offensive EW systems. This function occurs during the execution of the OPORD.

(4) The *assess* function is the determination of overall effectiveness of force employment during military operations. Combat assessment is composed of three elements: battle damage assessment (BDA), munitions effects assessment (MEA), and reattack recommendation. In combination, BDA and MEA inform the commander of strike effects against specific targets and target sets. Based on this information, the threat's warmaking and sustainment capability and centers of gravity are continuously estimated. During this review of the campaign's effects, restrike recommendations are proposed or executed. BDA within the targeting process pertains to the results of attacks on targets designated by the commander. Producing BDA is primarily an intelligence responsibility, but it requires extensive coordination with operational elements to be effective. BDA requirements must be translated into PIRs.

It is critical that only one person supervises the decide, detect, deliver, assess targeting methodology. He may be the G3/S3, the CofS/XO, or the FSCOORD. The targeting methodology of decide, detect, deliver, and assess is closely related to the TDMP (fig 1-5). Both begin with analysis of the mission and the commander's planning guidance and intent.

The G2/S2 provides information on the AO and the enemy which includes an assessment of the functions essential to the enemy commander's mission.

The G3/S3 develops COAs for staff analysis. Each is different, considering the potential application of all sources of fire support as well as maneuver to establish conditions necessary to accomplish the mission with minimum casualties. The G3/S3 must understand the capability fire support offers to accomplish the tasks k might otherwise assign to maneuver forces. This is the intent of "fighting with fires."

The G3/S3 and the G2/S2, FSCOORD, and other staff representatives, as necessary, war game each COA against enemy COAs. War gaming helps identify which of the HVTs the force must attack to accomplish the friendly mission.

At this time, the G3/S3 and FSCOORD must also determine the best means for attacking the target to achieve the commander's intent and guidance to disrupt, delay, or limit the enemy. The G2/S2, G3/S3, and FSCOORD plan the employment of sensor systems and attack systems to acquire and attack HPTs and to synchronize these actions with the scheme of maneuver.

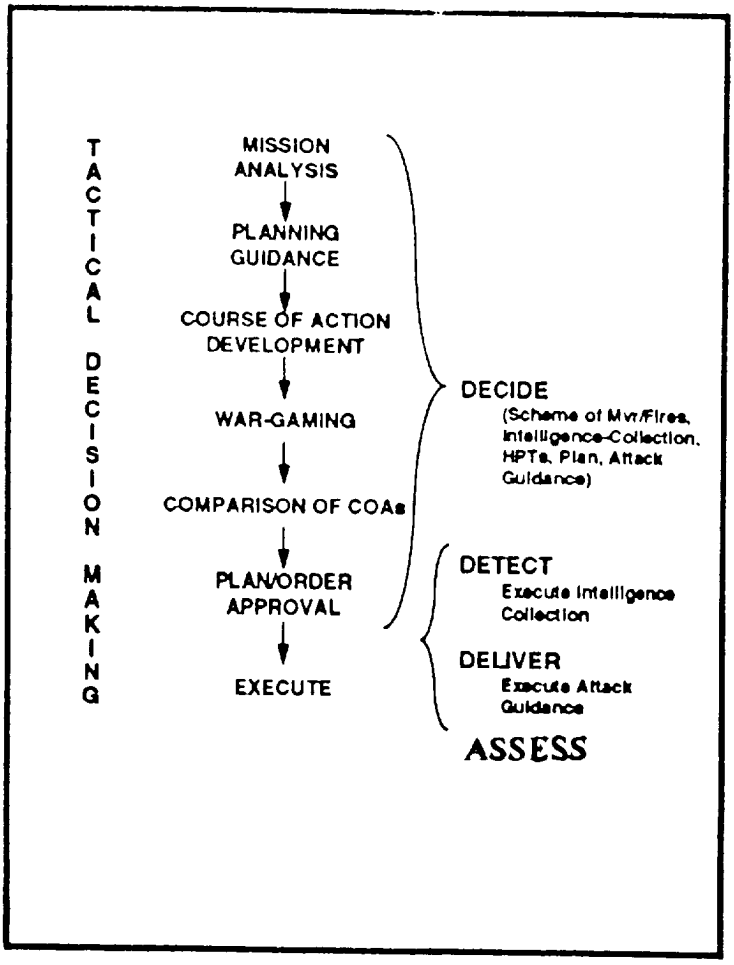


Figure 1-5. Decide, detect, deliver, assess in the TDMP.

CHAPTER 2

MISSION ANALYSIS

2-1. INTRODUCTION

Tactical decisionmaking is a continuous process. Until they receive a mission, staff members continually conduct situation updates in their respective areas of responsibility. A new mission, coming either through an order from a higher HQ or from the deduction of a mission through the analysis of the current operations, provides new direction to this continuous process for that particular operation.

Mission analysis is the first step of the TDMP. It consists of command and staff actions related to-

- Gathering facts (current status or conditions).
- Making assumptions (a substitutes for facts if information is not known).
- Analyzing higher mission and intent (what tasks are required to accomplish the mission).
- Issuing commander's guidance (focus for subsequent staff planning).

2-2. MISSION ANALYSIS STEPS

Mission analysis is critical to the success of the TDMP. Mission analysis begins with a review of the commander's intent one and two levels higher. From the review, the unit commander derives the essential tasks his unit must perform to accomplish the mission. Mission analysis ends when the unit commander approves the restated mission. There are eleven steps the commander and staff go through to accomplish mission analysis.

Step 1. The commander must thoroughly understand the mission and the intent of the commander of the next two higher echelons. For example, a brigade commander must understand the intent of his division commander and his corps commander. Understanding usually comes through direct, face-to-face discussion, particularly at lower command echelons. At higher echelons, direct coordination between a commander and his commander two levels higher may not always be possible. The lower commander can then expect to receive information through his next higher commander. Regardless of how it is received, the commander passes this information to his staff.

Step 2. The staff conducts an analysis of the area of operations, analyzes the concept of operation statement from the higher commander's OPORD, and reviews the task organization in order to understand the higher headquarters' mission and higher commander's intent.

Step 3. The staff identifies both specified and implied tasks. The higher headquarters OPLAN or OPORD states *specified* tusks which the unit must perform to successfully perform the higher commander's mission. Specified tasks are normally in either the concept of operation paragraph or the tasks-to-subordinate-units subparagraph. They may also be in coordinating instructions subparagraphs, service support paragraphs, annexes, appendixes, or at other places in the order. Coordination with higher headquarters or adjacent units could create additional tasks.

The unit must also identify *implied tasks.* Although not specified in the order, the unit must perform implied tasks in order to accomplish specified tasks. Implied tasks might include passage of lines, river crossings, breaching operations, and so forth. They do not include routine or SOP activities such as establishing liaison with adjacent units.

Step 4. The staff identities a tentative list of essential tasks and a preliminary restated mission statement, Essential tasks are tasks the unit must perform to successfully accomplish its own mission and that of the higher commander as well. These tasks define success and shape the restated mission.

Step 5. The staff reviews available assets, including attachments and detachments from the current task organization. This allows the staff to picture the means available with which to accomplish its preliminary restated mission.

Step 6. The staff determines any limitations (restrictions and constraints) to the commander's freedom of action which might influence task accomplishment. Restrictions are things the command prohibits the unit from doing (for example, not reconnoitering across the forward line of own troops (FLOT) before H-hour, or not crossing the international boundary with ground maneuver elements). Constraints are things which limit the unit's freedom of action (for example, maintaining at least one brigade in reserve or retaining ground gained during combat). Restrictions or constraints do not include doctrinal considerations. (For example, the requirement for a commander to orient his unit's movement along a designated axis of advance is neither a restriction nor a constraint; it is an implied task derived from a doctrinal consideration.) Simply put, restrictions are things the commander cannot do; constraints limit what he can do.

Step 7. The staff determines broad command and control warfare (C^2W) considerations, which allows the commander to make the most effective use of all lethal and nonlethal weapons systems.

Step 8. The staff proposes acceptable risk the commander will accept or reject. The higher headquarters might specify a risk the commander is willing to accept to accomplish the mission. The staff should also attempt to identify the enemy's center of gravity and, as much as possible, determine if the preliminary restated mission produces the desired effect against the enemy and contributes to the higher commander's plan.

FM 100-5 states in the glossary that the center of gravity is, "the hub of all power and movement upon which everything depends; that characteristic, capability, or location from which enemy and friendly forces derive their freedom of action, physical strength, or the will to fight." If these things are damaged or destroyed, their loss unbalances the entire structure, producing a cascading deterioration in cohesion and effectiveness which will invariably leave the force vulnerable to further damage. Attacking the center of gravity should be the focus of all operations; however, while attacking the center of gravity may be the surest and swiftest road to victory, it is rarely the easiest. More often than not, the enemy, recognizing his center of gravity, takes steps to protect it. The commander must then take indirect means to force him to expose it to attack. At the same time, the enemy will do his best to uncover and attack his opponent's center of gravity, too.

Step 9. The staff determines critical facts and assumptions which can and will directly affect successful accomplishment of the mission. In some cases, the commander may direct the staff to consider only those facts and assumptions he wishes.

Facts are statements of known data concerning the situation, including enemy and friendly dispositions, available troops, unit strengths, and materiel readiness. Mission and commander's intent (one and two levels up) are key facts. Facts also include staff projections and assessments of tangible and intangible factors (for example, assessment of fatigue levels in subordinate units, projection of Class V (ammunition) stockages, and forecasted replacements flow). The staff develops *assumptions* when facts are not available.

Assumptions replace necessary but missing or unknown facts. The assumptions in the higher headquarters operation plan (OPLAN) may be appropriate assumptions for subordinate headquarters' planning if they affect the mission. If appropriate, assumptions from higher headquarters will be listed as assumptions, not facts.

An assumption is appropriate if it meets the tests of validity and necessity. *Validity* defines whether or not an assumption is likely to occur. An example of a valid assumption might be, "The enemy will use chemical weapons." If the friendly unit plans for the enemy's use of chemical weapons and the enemy does use them, the unit will be prepared. An invalid assumption might be, "The enemy will not use chemical weapons." This assumption might be considered to be invalid, because the friendly unit could jeopardize its mission by assuming away the enemy's use of chemical weapons. Necessity defines whether or not the assumption is absolutely essential for the plan's development. If planning can continue without making the assumption, the assumption fails the test of necessity and, consequently, is inappropriate. Assumptions that do not pass these two teats are not absolutely necessary and should be discarded.

At different times, information can be either fact or assumption. For example, the staff usually considers weather analysis (an assessment) as fact. However, if proposed actions include air assaults that must have good weather to succeed planners must assume the weather will not impede the operation.

The staff must continuously assess the validity of facts and assumptions. As new information becomes available, assumptions become facts, or the staff modifies or discards them. As assumptions change, the staff reassesses their influence on potential solutions (COAs). The staff must clearly understand the concepts and roles of facts and assumptions in the estimate process.

Step 10. The element of time is not clearly identified for analysis in any of the staff estimates; however, time is critical to planning and executing successful operations and must be considered an integral part of mission analysis. The staff must continuously conduct time analysis until the unit accomplishes the mission. This implies that the commander must continuously balance detailed planning against maximizing speed and surprise by immediate action.

Step 11. After considering all 10 steps, the staff (CofS/XO or G3/S3) prepares the restated mission for the commander's approval. The restated mission contains all elements of the mission statement-who, what, when, where, ad why. These elements define both tasks and purpose. For example, "3d Bde (WHO) attacks in zone at 180500 Nov (WHEN) to seize (WHAT) obj DOG (WHERE) to allow 2d Bde to continue the division's main attack north (WHY)."

Customarily, commanders disseminate the restated mission to subordinate commanders as a *warning order*. The restated mission is also the foundation for staff estimates. A commander may modify the restated mission if the estimate process reveals new essential tasks or if the situation changes.

When time is short, the commander and his staff could jointly conduct mission analysis in the form of a brainstorming session, or the commander alone may conduct mission analysis as strictly a mental activity. The commander must emphasize rapid identification of essential tasks and arrival at the restated mission. The staff can then quickly move to the next step in the process to expedite the warning order. A timely warning order allows different echelons to conduct parallel planning (fig 2-1).

Although the emphasis here is on the commander's role, in many cases the CofS/XO actually leads staff efforts. However, in all instances, *the commander* must-

- Specify his organization's essential tasks.
- Approve his unit's restated mission.
- Issue a warning order.

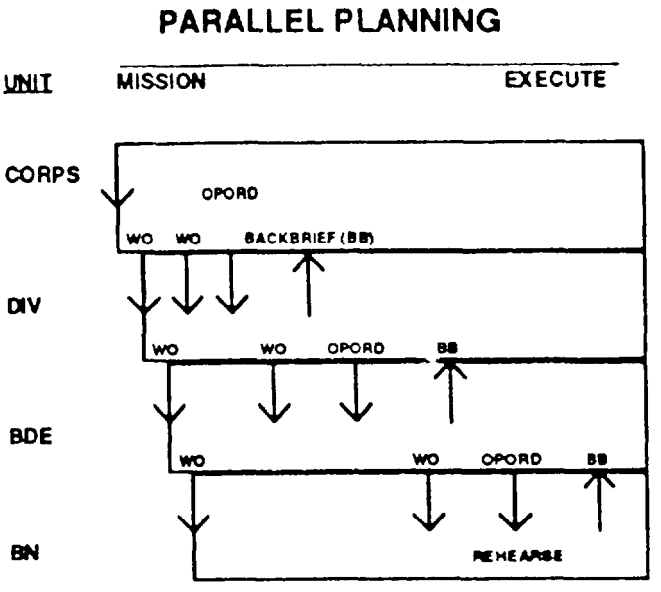


Figure 2-1. Parallel planning model.

2-3. COMMANDER'S GUIDANCE

After the commander approves the restated mission, he gives his staff initial planning guidance. His guidance is essential for timely and effective COA development and analysis.

The commander's responsibility is to implant his vision of the operation into the minds of his staff. He must provide them with enough guidance (preliminary decisions) consistent with the intent of commanders two echelons above and his own intent to enable them to plan the operation to achieve the mission. The commander can add focus to staff planning by stating the planning options he does or does not want them to consider. This will save the staff time and effort and will allow them to only develop COAs which contain features the commander considers important. Conversely, it also indicates those aspects which the staff should no longer consider.

To achieve this end, the commander's guidance must focus on the essential tasks that support mission accomplishment. This normally equates to the close operations arena, for it most often bears the ultimate burden of victory or defeat. The measure of success of deep and rear operations is their eventual impact on close operations.

Operating under the concept of simultaneous attack, commanders may strike at deep and close objectives simultaneously. The commander must provide broad guidance for deception operations and sustainment priorities and allow his staff to develop the deep operations concepts (which, in turn are based on conditions the commander and staff establish before successful close operations can begin).

The explicitness with which the commander guides his staff depends on the time available, the staff‘s level of proficiency, and the flexibility the next higher commander provides. As a general rule, the commander should not provide guidance in such detail as to inhibit ideas or initiative. With broad guidance, a proficient staff can develop planning options which will provide flexible employment of the force during mission execution.

Commander's guidance also acts as a parameter focusing staff activities. The more detailed the guidance, the more specific staff activities will be. And, the more specific the activities, the more quickly the staff can complete the activities. However, the more specific the activities, the greater the risk of overlooking or insufficiently examining one or mm details which may affect mission execution.

Whether commander's guidance is broad or restricted it should contain at least the following nine elements:

- Enemy courses of action.
- The restated mission.
- Intent.
- The concept of operation.
- The deception objective.
- Priorities.
- The time plan.
- The type of order to issue.
- The type of rehearsal to conduct.

a. Enemy courses of action. The commander must always consider possible enemy COAs when developing his own. Although k typically wants to allow the staff maximum latitude when developing friendly COAs, k may wish to specify enemy COAs which he considers the most probable or most dangerous. He may also wish to establish a priority which he wants his staff to focus on or plan against first. The command may further specify particular friendly COAs he wants developed or does not want considered. Regardless, k must exercise caution so as not to stifle the staffs initiative or mislead them.

b. The restated mission. The restated mission comes from mission analysis. To complete a restated-mission statement the commander must use precise terms. The commander and staff must explain missions as tasks and purposes which translate into specific actions which the assigned unit must perform.

c. Intent.

(1) General. The commander’s intent defines the purpose of an operation, acceptable risk k will assume, the end to be recieved, and in general terms, how the force as a whole will achieve that end state. The commander must be able to convey to subordinates a clear, concise statement of his intent based on his vision. This intent statement provides the foundation for developing his concept of operations and defines-

- The operation’s purpose.

- The operation's end state, which describes the relationship between the friendly force and the enemy force with respect to their capabilities and the terrain.

- How the force as a whole will achieve the end state. By using doctrinal concepts, the method remains broad yet concise. Within the method, the commander states the acceptable risk, the appropriate form of maneuver, defensive pattern, or type of retrograde operations he expects his force to use.

The commander forms his intent from mission analysis, the intents of his higher commanders, and his own vision. He personally states or writes his intent every time he receives a mission or an order, or when changing circumstances nullify his previous intent.

Intent helps subordinate commanders clearly understand their roles within the larger theater and within the constraints of the higher commander's intent. This understanding is crucial to command. Also, intents must be nested toward the achievement of a common end state. Trained properly within a common doctrinal base of reference, leaders must be capable of quickly understanding the intent and then directing their units accordingly.

(2) *Example of commander's intent statement*

2D (US) CORPS COMMANDER'S INTENT

PURPOSE	The purpose of this operation is to destroy the Iraqi II Corps forces in zone, protect the 21st (US) Corps flank, seize obj TAYLOR, and establish blocking positions along the EUPHRATES River from SUD ASH SHUYUKH to AL BASRAH.
METHOD and RISK	I intend to conduct a deception in the eastern part of our zone to fix the enemy's attention while we mass our forces in the west to penetrate their defense. I accept risk in the rear by not establishing a TCF. We will then conduct an envelopment of their forces in depth to complete their destruction.
END STATE	At the conclusion of this operation, we will have occupied obj TAYLOR and be in blocking positions along the EUPHRATES River, will have destroyed all the Iraqi forces in zone, and will have sufficient combat power forward to continue offensive operations into Iran or Iraq.

d. The concept of operation. The commander uses this element to direct his staff's focus in broad terms of where, when, and how he will concentrate his combat power to attain his mission in accordance with his higher commander's intent. The concept of operation addresses the battlefield by the elements of organizing the battlefield. It also broadly outlines consideration necessary for developing a scheme of maneuver,

A simple, complete concept of operation is the basis of all tactical offensive actions. To be complete, it must address the operation's battlefield organization. The concept must permit rapid transition between offensive phases. Corps and division commanders must organize the following five complementary offensive elements when organizing the battlefield for conducting the attack:

- Close: main attack and supporting attack.

- Reserve.

- Reconnaissance and security

- Deep.
- Rear.

Brigade and lower echelons normally do not conduct separate deep and rear operations; however, these echelons do loo& for and anticipate enemy uncommitted forces which may affect mission accomplishment. They also provide all-around security, including protection of logistic trains in the rear.

NOTE: See FM 100-5, chapters 7, 9, 10, and 11, for more information.

A defensive COA also requires a simple, complete concept of operation for all tactical defensive actions. Numbered armies, corps, and divisions fight a unified defensive battle consisting of complementary deep, close, and rear operations. There are five complementary defense elements when organizing the battlefield:

1. Security.
2. The main battle area: main effort and supporting effort
3. Reserve.
4. Deep.
5. Rear.

NOTE: See also FM 100-5, chapters 10, 12, and 13.

The scheme of maneuver is the central expression of the commander's concept for close operations. It-

- Outlines the movements of the force.
- Identifies objectives or areas to be retained.
- Assigns responsibilities for zones, sectors, or areas.
- prescribes formations or dispositions when necessary.
- Identifies maneuver options which may develop during an operation.
- Requires the uninterrupted support of field artillery, air defense, air support, engineer, military intelligence, communications, and service support.

The scheme of maneuver also considers-

- The effects of nuclear and chemical weapons on the force as well as preliminary guidance on nominating nuclear targets against the enemy (corps only).
- Specific aspects of the battlefield (for example, retaining specific terrain).
- Areas and degrees of acceptable risk.
- Preliminary composition of reserves.

- Timely (sequencing of activities).
- Preliminary C^2 arrangements.
- Any information the commander wants the staff to consider as planning continues.

The commander's scheme of maneuver determines the subsequent allocation of forces and governs the design of supporting plans or annexes. The scheme of maneuver normally guides the effort to coordinate fires, obstacles, air defense priorities, EW, deception efforts, and CS and CSS arrangements.

NOTE: See also FM 100-5, chapter 2.

e. The deception objective. FM 100-5, page 6-9, defines the deception objective as "the enemy commander and the decisions he is expected to make during the operation." The goal of the deception plan is to mislead the enemy commander to cause him to commit to a COA that the friendly force can exploit before the enemy can effectively recover or react.

Deception activities exploit the enemy's combat intelligence system and decisionmaking cycle. The commander must plan the deception operation at the same time as he plans his COAs. The deception plan must be compatible with the scheme of maneuver, and it must be plausible within the capability of the commanders force, Army doctrine, and the enemy's beliefs about us. To express the deception objective, the commander issues a mission statement detailing what he desires the enemy to do. In doing so, he should consider-

- What forces and materials he will dedicate to the effort.
- How he expects the enemy to behave.
- How he expects to exploit enemy behavior.

Tactical level deception must be coordinated with operational deception plans so they reinforce rather than impede or contradict one another. Establishment of a deception objective is dependent on the level of command. At echelons below division, commanders normally execute deception operations as part of the higher commander's plan.

NOTE: See also FM 90-2.

f. Priorities. The commander should specify any initial priorities he envisions for CS or CSS activities. Of particular concern are those sustainment priorities revolving around resources the commander needs to preserve his freedom of action and to assure continuous sex-vice support. prioritizing also outlines the defense against the enemy's deep operations. Rear operations priorities include limits for deception activities and establishing priorities for key sustainment functions, such as-

- Manning (personnel readiness management, replacement management, casualty management).
- Arming (allocation priorities for controlled supply rate (CSR) munitions).
- Fueling (allocation priorities).
- Fixing (controlled maintenance priorities).

- Transporting (allocation priorities for heavy-equipment transporters (HETs) and management of infrastructure such as ports, air fields, depots, rails, and roads).

- Sustaining soldiers and their systems (personnel service support, health services, field services, quality of life, general supply support).

NOTE: See also FM 100-5, chapter 12.

g. The time plan. Time cannot be saved or gained; however, one force may be able to we time more effectively than another. Time, as much as any other factor, determines the detail with which the staff can plan. The commander must analyze available time and decide how much he can allot for planning and preparing his and subordinate organizations and for mission execution.

Army activities occur on terrain and above it. To synchronize an operation, staffs must translate desired events into time-distance-density parameters. In planning the use of time, the commander must consider-

- The available time (using the reverse planning process).

- The complexity of the mission.

- The position of forces.

- The planning requirements to conceive and synchronize mission execution.

- Combat penetrations (including subordinate unit planning, movement, logistic preparations, reconnaissance, rehearsals, and combat inspections).

- Light conditions for mission execution and combat preparation.

- How and where he will issue his order.

Rules, such as the 1/3 to 2/3 or 1/5 to 4/5 rules, are useful as planning factors, but planners must modify them to fit the situation.

Related to planning time is the time the commander uses to develop his guidance. He must consider the available time, his assessment of the staff's proficiency or experience (what the staff can do for him in the available time), and any planning options that either are or are not acceptable. With enough time, and with an experienced staff, the commander may provide only broad guidance. If time is short or the staff inexperienced, he may need to provide detailed guidance, including specific planning options.

h . The type of order. Above all else, the commander's subordinates must understand the order. They are more likely to understand a written order than an oral order, and they can refer back to written orders if needed. If there is enough time, giving a written order with a briefing is the optimum procedure for disseminating a plan. A written order need not be lengthy, but it does need to be clear and concise.

Some missions are simple and straightforward and do not need a written reference. Others are time sensitive and must be executed immediately. Because of these conditions, there are five general forms for issuing orders. They balance factors available and give commanders several formats from which to choose:

- The fragmentary order (FRAGO).

- The oral order.

- The open (fill-in-the) blank order.

Paragraph 2-4 is an extract from ST 101-6, dated 01 Jun 95, pages 5-9 through 5-14; authority AR 25-30, paragraph 12-23, February 1989, reprinted by The United States Army Command and General Staff College.

- The five-paragraph written order.

i. The type of rehearsal. The commander conducts a rehearsal to gain agility for his force as a whole, to ensure coordination of events, and to enhance mutual support among subordinate units. An effective rehearsal-

- Identifies problem areas and omissions.
- Indicates required contingencies.
- Determines movement-reaction times.
- Enhances coordination.
- Refines the plan.
- Increases the confidence of subordinate leaders and soldiers.

Factors which can affect rehearsals include the time available before the mission, the enemy's proximity, the availability of a suitable rehearsal area, and ambient light. Each type of rehearsal balances these factors, giving the commander several formats form which to choose, including the-

- Backbrief (a briefing the higher commander in which the commander describes how he intends to accomplish his mission).
- Radio rehearsal.
- Map rehearsal.
- Sketch-map rehearsal.
- Terrain-model rehearsal.
- Key-leader rehearsal.
- Fullrehearsal.

2-4. MISSION ANALYSIS CSS CONSIDERATIONS

The following is a methodology for logistics planners as they go through the deliberate decisionmaking process. As part of the process, the five basic questions logistics planners and operators should always be able to answer are-

- Where are we on the battlefield?
- Why are we here?
- How do we support from here?

- How do we get support from here?
- When, to where, and in what sequence do we displace to ensure continuous operations?

This methodology is based on the customer and the customer's needs. In short, there are five areas that must be addressed: requirement, capability, shortfall, analysis, and solution model. The shortfall portion w-ill, of course, be ignored, but if there is no shortfall, the rest of the model and the methodology remain valid. This methodology can be used throughout the deliberate decisionmaking process. The level of detail at which each question can be answered is a reflection of the planner's position and organization. The intent is that the major Army command (MACOM) (corps, division, etc.) staff officer tell the support command what the mission is, not how to do it.

Requirements

1. What method is used to determine logistics requirements (for example, personnel density, equipment density, planning factors, OPTEMPO, combination, etc.)?

2. What are the sources of the requirements determination calculations (for example, the Supply Usage Requirements Estimator (SURE), FM 101-10-1/2, the *G1/G4 Battle Book,* historical data, etc.)?

3. What is your customer list for this requirement?

- Will it change during the operation?

4. Identify implied logistics tasks based on the tactical plan.

- What are be ramifications of river crossings, pauses, deep attacks, etc.?

5. Is there an NBC threat?

6. What do you need?

7. How long will you need it?

8. Where do you need it?

9. What do you need to put it there (for example, fuel bladders/hags, rough-terrain container handlers, forklifts, cranes, etc.)?

10. How will you get it there?

11. When do you need it there?

- How long will it take to get it there?

12. How soon will it be available to move there?

- Where is it coming from?
- What do you need to do with it before moving it where you need it? (For example, does it have to be containerized, broken down, segregated separated disassembled configured or reconfigured before movement?)

-How long will that take?
-What are the requirements for that?

13. Does it have to move again after it gets there? (For example, is it a GS-GS transaction? GS-DS? DS-DS? DS-user?)

- Who will move it from there?

14. What are the competing demands for this requirement?

15. What is required to offload it when it gets there?

16. Does anything need to be done with it once it gets there? (For example, does it have to be unpacked, assembled, etc.?)

17. What has to be done to move it once it is there?

18. Does this requirement have special employment considerations (for example, require a large, level area of land or a fresh water source; be located near an MSR; need refrigeration; require dedicated transportation; etc.)?

19. How often will the commodity, supply, or service be required?

- How often must it be replenished?

20. Does the requirement have preparatory activities (for example, engineers to berm a bag farm, airfield matting for FARPs, or road and pad construction for a CSA)?

- What is the expected duration of the required preparation?
- How do you request the preparation and who approves it? (For example, engineer work has to be approved through channels.)
- What support is required for the preparatory activities?
- Are there options?

Capabilities

1. What available units can fulfill the requirement?

2. What is the basis of allocation for the unit that has the necessary capability? (For example, is its basis of allocation one per corps or division, or is it based on supported populations or expected equipment densities?)

3. Is more than one unit required to provide the capability? [For example, the POL supply company is usually employed with the medium truck company (POL).]

4. What are the overall receipt, storage, and issue requirements for my area of support for this particular commodity, supply, or service?

5. Are receipts and issues exclusive capabilities? (For example, can a unit receive, store, and issue so much of a particular commodity, or can it only receive *or* store or issue *or* rewarehouse so much of a particular commodity?)

6. Will this capability be used to weight the battle logistically?

7. What is the total STON/gallon/other distribution capability by mode? Line-haul? Local haul? Other?

- What distribution planning factors were used?

8. How many locations require this capability?

9. Are any units with this capability already committed?

10. Are any units with this capability due in? When?

11. Do units depend on other units to function? (For example, to perform their missions, some mode transportation units must bring cargo to a cargo transfer company.)

12. Can a unit deploy elements (sections or platoons) to place the capability where it is required?

13. Does the unit have unique management/employment considerations?

Comparison/Shortfall

1. If there is no shortfall, go to the analysis portion of this methodology.

2. Which requirements exceed capabilities?

3. For requirements that exceed capabilities, is it overall or in a particular area, region, or time?

4. How much is the shortfall in terms of units of measurement (STON, gallons, square feet)?

5. What does the shortfall equate to in terms of DOS?

6. At what point in the battle is the requirement expected to exceed the capability?

7. What is the type of shortfall? Is it a supply availability shortfall, a resource (equipment, MHE, personnel, facilities, man-hours, etc.) shortfall, or a distribution shortfall?

Analysis

The analysis process has to occur for all support operations even if there is no shortfall. The log planner has to d&ermine how to support the operation.

1. What is the earliest the support operation can begin?

2. What is the latest the support operation can begin?

3. Is it better to be early or late?

4. What is the purpose of the support? (For example, is the purpose to build stocks at GS, to sustain a force for a given period of time at DS, or to resupply a user?)

5. Will support be provided from a fixed location or from a forward logistics element?

6. What is the shortfall's significance?

7. What is the shortfall's potential impact?

8. What is the shortfall's expected duration?

9. What caused the shortfall (battle loss, time-phased force deployment sequence, etc.)?

10. If the shortfall is a *supply availability* shortfall, consider the following:

- Is the shortfall only at this level or is it at higher levels as well?
- Is it a result of higher commands' efforts and support priorities?
- Is the supply available at other echelons and, if so, where?

  -How long will it take to get here?

- Is there an acceptable alternative, a substitute, or an alternative source of supply?

11. If the shortfall is a *resource shortfall* (equipment, MHE, personnel, facilities, man-hours, etc.), consider the following:

- Can similar resources be diverted or obtained from somewhere else? (For example, a cargo transfer company can supplement a CSA with lift, given proper supervision and technical assistance.)
- Is host nation support a viable alternative?
- How specialized is the shortfall resource? (For example, it is easier to tram an MA specialist than it is to train a doctor. It is easier to find an automotive mechanic than it is an M-1 fire control specialist.)
- Can a secondary MOS be used?
- Does a sister service or coalition partner have the capability?

12. If the shortfall is a *distribution shortfall,* consider the following:

- Is the. shortfall due to a lack of assets or to a time-distance problem?
- Does the shortfall capability require special handling or any special distribution requirements?
- Are there any alternative distribution modes?
- What are the alternative mode requirements? (For example, a pipeline requires continuous pump and ho&pipeline maintenance ad engineer support to lay the pipeline, etc.)
- Are host nation distribution assets available?
- Are sister service/coalition assets available?

  -Are they compatible? (For example, European and SWA host nation fuel tankers are metric and require a coupler adapter to interface US tankers or bags.)

- Are there any airfields, field landing strips, or helipads near the requirement?

13. How will logistics capabilities be echeloned forward?

- Which units will be tasked to establish forward logistics bases?

Solutions

1. Determine the most workable solutions based on analysis.

2. Integrate with other support operations and commodities

To put this methodology into context, there must be some continuity between the tactical decisionmaking process and the logistic planning process. Each of the model's categories (requirements, capabilities, shortfalls, analyses, and solutions) must have any associated, necessary, and valid assumptions stated up front.

2-5. TERMS

a. Terms common to all operations.

Deception operations
- Demonstration
- Display
- Feint
- Ruse

Defeat

Destroy

Mission
- Be prepared
- Committed forces
- On order
- Uncommitted forces

Passage of lines

Rear operations
- Military police
- Response forces
- Tactical combat force

b. Terms common to reconnaissance and security operations.

Reconnaissance
- Area
- Route
- Zone
- Armed reconnaissance
- Reconnaissance by fire
- Reconnaissance in force
- Reconnaissance patrol (ground)
- Route classification

Security operations
- Covering force
- Flank guard
- Guarding force
- Rear guard
- Screening force

c. Terms common to offensive operations.

Forms of Maneuver
- Envelopment
- Frontal attack
- Infiltration
- Penetration
- Turning movement

Terms

- Attack
- Breach
- Breakout operations of an enemy force
- Clear enemy in zone
- Counterattack
- Deliberate
- Encirclement
- Exploitation
- Follow and assume main attack
- Follow and support force
- Frontal
- Hasty
- Infiltration
- Insertion
- In stride
- Interdict
- Linkup
- Main
- Movement to contact (NATO)
  - Advance to contact
  - Meeting engagement
- Neutralize
- Pursuit
- Raid
- River crossing
  - Deliberate
  - Hasty
- Seize
- Show of force
- Source
- Spoiling
- Support force
- Supporting

d. Terms common to defensive operations.

Defensive Patterns

- Area defense
- Mobile defense

Terms

- Attrition (Attrit)
- Block
- Canalize
- Contain
- Defense
  - Defend encircled
  - Defend in battle position
  - Defend in sector
  - Defend in strong point
  - Deliberate defense

Hasty defense
Reverse slope defense
Fix
Relief in place

e. Terms common to retrograde operations.

Types
Delay
Retirement
Withdrawal

Terms
Delaying operations
Delay
Delay in sector
Delay forward of a specified line for a specified time or specified event
Delay from alternative positions
Delay from successive positions
Exfiltration from encirclement
Retirement
Retrograde
Withdrawal

CHAPTER 3

COURSE OF ACTION DEVELOPMENT

3-1. COA DEVELOPMENT GUIDELINES

A COA is a possible plan the commander can use to accomplish the mission assigned to him A COA is usually stated in broad teams; the details are determined during the analysis (war gaming) phase. The COA may be revised, modified, or changed during war gaming; courses of action are developed for all staff members to analyze.

The number of COAs developed should be manageable. Planners develop two or three COAs as a minimum if time and resources permit. The ultimate goal is to develop several COAs for every enemy COA developed by the G2 and meet the higher level commander's intent and concept of operation. If time is limited, or the G3 must decide on the number of COAs the planners will develop and which enemy COAs they will address.

Complete COAs must consider, at a minimum. -

- The mission.
- The commander's intent and guidance.
- Task organization.
- The CCIR
- The battlefield organization.
- Essential tasks.
- Effective use of command and control.
- Friendly use of nuclear weapons and enemy use of nuclear, biological, and chemical (NBC) weapons.
- Combat service support considerations.

COAs must differ significantly. Normally, developers can identify differences in the-

- Use of reserves.
- Task organization.
- Main efforts.
- Scheme of maneuver.

A COA should include these five elements:

- WHAT-the type of offensive, defensive, or retrograde action. The what consists of the mission essential task(s) for the unit.

- WHEN-the time action will begin or must be completed by; e.g., on order, D-day, H-hour, or a specified date-time group.

- WHERE-the assigned AO, such as assigned sectors (defense or retrograde operations), zones of action (offense) or AO in operations other than war.

- WHY-the purpose of the operation.

- HOW- method of conducting the operation using major available assets. Only major significant items of the battlefield operating systems (BOSs) should be addressed, not the routine use of assets. The tasks and purpose for the main and supporting efforts should be cited.

The WHAT, WHEN, and WHY portions are normally provided by the higher HQ. Planners are most interested in identifying objectives, schemes of maneuver, and fires.

After receiving guidance, the entire staff (usually led by the CofS/XO, but occasionally the G3/S3) develops COAs to identify and retain for analysis. Only suitable COAs are further considered for development and analysis; unsuitable COAs are discarded. Initially, while the G3/S3 formulates potential conceptual possibilities, other staff officers (including FS, engineer, AD, chemical, communications, and transportation officers) consider integration of the BOSs. Each COA must meet the tests of suitability, feasibility, acceptability, distinguishability, and completeness:

- In the COA *suitable?* Will it actually accomplish the mission when carried out successfully? Is it aimed at the correct objectives? Does it focus on the restated mission? Does it comply with the higher commander's intent? Does it follow the unit commander's guidance? Suitability analysis largely correlates to the "art" of war since it primarily depends on the commander's or senior staff officer's knowledge and opinion.

- Is the COA *feasible?* Does the unit have the required resources (personnel, transportation, resupply, facilities, and so on)? Can resources be made available in the time contemplated? If conditions change significantly, will the unit's future capability be negated? Feasibility analysis is a qualitative measurement of a concept. It largely correlates to the "science" of war in that it primarily involves measurements such as time, space, and means.

- Is the COA *acceptable?* Even though the action will accomplish the mission and the unit either possesses or controls the required resources, is executing that course of action worth the cost in terms of possible losses of personnel, time, materiel, and position? Acceptability analysis is largely an intuitive process based on experience, expertise, and a firm understanding of the current situation.

- Is the COA *distinguishable?* Although there may be military operations in which only one feasible COA exists, that is not the norm, particularly at higher command echelons. To present viable altenative for the commander's consideration, COAs must be substantively different. Developing alternatives only superficially different stifles creativity, wastes time, increases risk, reinforces undesirable predictability, and largely obviates staff analysis.

- Is the COA *complete?* After reducing COAs to a manageable number, a last check is given to confirm t&y are technically complete. Does each retained COA adequately answer what, when, where, why, and how?

There are no limits on clearly explaining how units are to execute the COA. The commander uses refined COAs in his final decision. Each COA must be explicit to allow the commander to make sound judgements. The who prepare the COAs must not usurp the initiative and prerogative of subordinate commanders by including too much of the "how. "

When developing COAs, planners should always consider how a COA would be different if it were conducted at night versus daytime. There could be a significant advantage; if so, it should also be presented to the commander far consideration. The commander may need to request a change in H-hour from his higher commander to better capitalize on that advantage.

The commander ultimatelty selects one COA to become his primary control means. The staff then r&es the selected COA into the base (primary) plan. Courses of action the commander did not select might then become branch plans, which the commander can rapidly execute when conditions dictate the desirability or necessity to do so. The added flexibility which branch plans give adds agility to the force.

3-2. STEPS USED TO DEVELOP COURSES OF ACTION

The CofS/XO can use the following steps to guide the staff through COA development:

Step 1. Analyze relative combat power.
Step 2. Generate conceptual possibilities.
Step 3. Array initial forces.
Step 4. Develop the scheme of of maneuver.
Step 5. Determine C^2means.
Step 6. Prepare COA statements and sketches.

Step 1. Analyze relative combat power.

Combat power is the effect created by combining maneuver, firepower, protection, and leadership, the dynamics of combat power, in combat against the enemy. By integrating and applying the effects of these elements with any other potential combat multipliers (CS and CSS arms as well as other service assets available) against the enemy, the commander can generate overwhelming combat power to achieve victory at minimal cat. This task is difficult, at best. It requires an assessment of both tangible and intangible factors as well as consideration of an inordinate number of those factors either directly or indirectly affecting the potential outcome of the battle.

However, by analyzing relative-force ratios and determining and comparing each force's most significant strengths and weaknesses as function of combat power, planners can gain some insight into-

- Friendly capabilities pertaining to the operation.
- What type operations may be possible from both friendly and enemy perspectives.
- How and where the enemy may be vulnerable.

Although some numeric relationships are used in this process, it is not like the former-Soviet mathematically substantiated computation for the correlation of forces. Rather, it is only a largely subjective estimate. The COAs must not be based strictly on mathematical analyses. Pure, logical approaches are often predictable, sacrificing the surprise that bold, audacious action can achieve.

Planners can initially make a rough estimate of relative-force ratios. Figure 3-1 shows a corps-level analysis in which planners are counting maneuver and field artillery brigades as roughly equal to enemy equivalents.

Friendly corps		*Enemy army*	
Unit	Number	Unit	Number
Division (maneuver)	3	Division (maneuver)	4
ACR (maneuver)	1	ACR (maneuver)	1
Avn bdc (maneuver)	1	Avn regt (maneuver)	1
FA Bde(fires)	4	FA rest (fires)	3
		AT regt (fires)	1
TOTAL	9	TOTAL	10
Ratio = 9;10 = 1.0: 1.1			
Ground bde (maneuver)	*9*	Ground bde	16
DIVARTY (fires)	3	DIVARTY (fires)	1
Avn bde (div)	3	Avn bde (div)	1
ACR (maneuver	1	ACR (maneuver)	4
Avn bde (corps) (maneuver)	1	Avn bde (corps) (mnvr)	3
FA bde (fires)	4	FA bde (fires)	1
TOTAL	21	TOTAL	26
Ratio = 21:26 = 1.0:1.2			

Figure 3-1. Samples of relative force ratios.

When the staff finishes its computations, it draws conclusions about friendly and enemy relative capabilities and limitations as they pertain to the tactical situation. These computations give the staff a feel for relative strengths and weaknesses, but not absolute mathematical answers as to what friendly or enemy forces will do. Numerical relative-force ratios do not include the human factors of warfare. Many times human factors be more important than the number of tanks or tubes of artillery. Therefore, the staff must carefully consider and integrate them into their comparisons. By using historical minimum-planning ratios for various combat missions and carefully considering terrain and enemy templating assumptions, planners can generally conclude what type of operations they can conduct (fig 3-2).

Relative strengths and weaknesses can be further refined by attempting to derive the single greatest strength and weakness for each force, at a minimum, in each of the four dynamics of combat power. By comparing friendly strengths against enemy weaknesses for each combat-power dynamic, followed by like comparison of enemy strengths against friendly weaknesses, planners may be able to deduce particular vulnerabilities for each force that may be exploitable or may need to be protected. These deductions may further lead p1anners to gain insights on potential decision points. They can then *determine the ratio of friendly units required.* (The ratios are for developing COAs only and not for actual combat.) Historical experience shows that a defender has about a 50-50 probability of successfully defeating an attacking force

approximately three times his equivalent strength. The defender has many advantages: full use of cover and concealment, selection of the ground on which to fight, weapons sighted for maximum effectiveness, choice of firing first, and use of obstacle value of the terrain. Therefore, as a starting point, the commander might attempt to defend on each avenue of approach (AA) with, roughly, a 1:3 force ratio expressed as a friendly unit arrayed against the next higher level enemy unit. (For example, a friendly battalion would &fend against an enemy regiment.)

A planner first compares the relative force ratios with the ratios in column 2 of figure 3-2. He can then determine if his unit has the odds that would give him the flexibility to conduct any type of operation he desires. The G2/S2 will also know if the enemy has that capability. In a defensive situation, the planner would know the enemy must conduct a penetration. In an offensive situation, k would know k cannot conduct offensive operations without massing his forces and accepting risk in some area. He would be able to use this information when k begins developing a scheme of maneuver. If he identifies a ratio closer to one of the other planning ratios, k could draw other conclusions indicating another type of possible operation This step provides the planner with a notion of "what to"; not "how to." There is no direct relationship between force ratios and attrition or advance rates. *Relative-force ratios do not necessarily indicate the chance for success.*

Friendly mission	*Friendly: enemy*	*Position*
Delay	1:6	
Defend	1:3	Prepared or fortified
Defend	1:2.5	Hasty
Attack	3:1	Prepared or fortified
Attack	2.5:1	Hasty
counterattack	1:1	Flank

Figure 3-2. Historical minimum planning ratios.

Step 2. Generate conceptual possibilities.

Brainstorming is the preferred technique for generating conceptual possibilities. While brainstorm& the staff must not judge or eliminate any idea. They must remain unbiased and open minded. Brainstorming requires time, imagination, and creativity; it is a f&-wheeling mental activity whose greatest strength is its serendipitous, idea-building effect on participants.

The commander, through his guidance, must decide on the number of COAs to develop and the number and priority of of COAs to address. Often k will find k can combine COAs or move desirable elements from one to another. The CofS/XO must comply with the commander's guidance about specific COAs. He should not waste time developing one the commander does not want to consider. And he must avoid the common pitfall of presenting one good COA among several "throwaway" COAs. The staff may later k able to develop feasible COAs into branches of the base plan.

Once the staff has explored each concept's possibilities, they can examine each to determine if it satisfies COA-selection criteria and change, add, or shelve concepts, as appropriate. Although the ultimate goal is to develop COAs for every possible enemy COA which the G2/S2 developed before or during mission analysis, the number of COAs the staff develops should be manageable.

Step 3. Array inital forces.

To determine the forces necessary to accomplish the mission and to provide a basis for the scheme of maneuver, planners must consider---

- The unit's restated mission and the higher commander's intentions and guidance.
- The AAs (both enemy and friendly).
- As many possible enemy COAs as time permits, typically starting with the most probable.

Planners next determine the size of the friendly units to be arrayed. Figure 3-3 shows the size of the units to be arrayed at the various planning levels and the size AA the planning level will array against. Planners array ground forces two levels down. Other operations, such as pursuit, exploitation, and movement to contacts, require no particular ratio; however, planners can use a ratio of 1:1. This ratio considers terrain and mission but *not weather, initiative, surprise, logistics, or combat effectiveness intangibles (leadership, training, morale, and skill).* It is a starting point only; planners can adjust the ratio as they develop the COA.

Planners next determine *a proposed forward edge of the battle area (FEBA) (defense) or line of departure is line of contact (LD/LC) (offense)).* Higher headquarters indicates the desired FEBA and LD/LC for the proposed mission. This zone is the expected point of initial contact and is where the initial array of friendly faces begins. Initial G2/S2 terrain analysis should attempt to validate the selection or determine a recommeded change which must be resolved with higher headquarters.

Planners can then *develop the deception story.* The deception story is the information planners want to present to the deception target's intelligence system. It should cause the enemy to execute the action which the commanders has stated as his deception objective. Since aspects of the story may influence positioning of units, planners must conceive the story's major elements develop developing any courses of action. Formulating a plausible deception story requires close cooperation between the operations officer and the intelligence officer. See also FM 90-2, chapter 4.

Planners can now make the *initial array of friendly forces.* The initial array of ground forces begins at the expected point of initial contact. Planners must consider force-ratio requirements for each task (bow much combat power it will to attack, defend, delay and so forth, along each AA). The initial array focuses on genetic ground maneuver units without regard to specific type. At division level, planners array generic battalions, whether mechanized or armored. At corps level, planners array two levels down using generic brigades consisting of three battalions and appropriate CS and CSS. Planners begin the initial array without regard to task organization. Subordinate headquarters one level down task organizes units. During this step, planners do not assign missions to arrayed units; they merely gain appreciation of what forces they must allocate to accomplish the mission.

In the defense, planners begin the array by placing ground maneuver forces where they can block enemy AAs to the unit's area. Recalling the ratio required to defend (1:3) (fig 3-2), planners array forces in the main battle area (MBA) first, then in the covering-force area (CFA). They array forces in each area without regard to the other. After completing the array against the avenues, planners array additional forces (based on enemy and terrain analysis of the commander's guidance) to cover any gaps between forces astride enemy AAs.

Planning Level	*Avenue of advance size*	*Array forces*
Corps	Division	Brigades
Division	Regiment/Brigade	Battalions
Brigade/regiments battalion/squadron	battalion company/troop	companies/troops platoons

Figure 3-3. Planning guide for size of unit to be arrayed.

The initial array should provide a cohesive defense. Planners should try to position forces along the forward edge of the CFA, along the FEBA, as well as in depth throughout the AO.

In the offense, planners begin the initial array by allocating forces to all AAs from initial contact to the objective. They base the allocation on how the enemy positions units to affect friendly forces moving on the AAs. Planners gain appreciation of the enemy force present in the battlespace when they develop COAs, including branches.

The commander uses the completed initial array to identity the total number of units he requires. If the number arrayed is less than the number available, he places additional units in a pool for use during scheme-of-maneuver development. If the number arrayed is greater than the number available, he can estimate shortfalls and possible requirements for other resources. More important, he will have-

- Identified force requirements.
- Developed a base of knowledge from which to make decisions (such as when reducing the number of troops in certain areas (economy of force) or accepting risk).
- Identified possible alternate methods of dealing with the enemy during scheme-of-maneuver development..

Step 4. Develop the scheme of maneuver.

A scheme of maneuver is the description of bow arrayed forces will accomplish the commander's intent. It is expressed in terms of defeating the enemy or accomplishing the mission through maneuver and provides---

- How the organization will achieve the end state.
- A means for actually employing forces.
- The basis for analysis.

The process helps planning headquarters determine how to accomplish the mission using available assets. Planners should develop several schemes of maneuver for each potential enemy COA as time permits.

Planners develop a scheme of maneuver by refuting the initial array of forces (step 3). The scheme of maneuver includes the appropriate actions for addressing the various elements of the battlefield framework by--

- Reevaluating the terrain and the enemy.
- Reevaluating the force ratio and accepting risk.
- Considering the impact of shortages or of using forces uncommitted during the array of initial forces.
- Evaluating types of operations identified as possible during the relative combat power analysis.
- Determining the location of objectives and counterattack objectives.
- Determining locations of the main effort and supporting efforts.
- Integrating obstacles with maneuver and fires.

Planners address all maneuver forces by arraying additional forces. When developing the scheme of maneuver, planners should use any forces remaining from the initial array to provide depth to the battle, provide security, or act as a reserve.

In the defense, the staff should first allocate additional forces to provide depth to the initial defensive units. An examination of follow- forces on each potential enemy AA will indicate what additional forces planners may need to hold the enemy, maneuver to a flank or rear, or destroy the enemy. As they array additional forces, the commander may attempt to seize the initiative by accepting risk. For instance, k might plan an economy-of-force mission in one area to allow the concentration of forces in another. The scheme of maneuver is expressed in terms of positioning major subordinate commands (MSCs) in depth throughout the AO. It includes the maneuver of all ground, air, and reserve forces against enemy forces approaching and entering the unit's defensive position.

In the offense, planners array additional forces in depth along the AA based on the enemy situations, terrain, and weather. The AA the main effort will pass through receives priority of forces. The arrayed forces should contain sufficient forces to destroy, defeat, or block any enemy forces attempting to move against friendly attacking forces. Planners express the scheme of maneuver in maneuvering MSCs through or around the enemy to seize an objective or to destroy the enemy.

Attack helicopter units are additional maneuver forces commanders can allocate when developing the scheme of maneuver. But, in order to make the best use of attack helicopter units, planners must consider their inherent limitations and capabilities. Because attack helicopters cannot hold terrain without augmentation planners may assign them to deep operations, to the reserve, as reinforcement of committed units, to attack missions within the appropriate AO, or to rear operations.

Planners must also consider bow obstacles and fires can support maneuver forces in various battlefield elements. If there are insufficient maneuver forces, the scheme should include using CS assets to assist maneuver forcer. Although planners do not address specifics of support until the actual war game, they must consider using combat support to accomplish a particular portion of any of the battlefield elements in the scheme of maneuver.

When converting generic forces (arrayed during step 3 against type-specific forces), planners make a conscious decision to identify which type of forces to allocate for the identified missions. They must consider the terrain, enemy, mission of the arrayed forces, and such imponderables as leadership, morale, and

reliability. Because major subordinate commanders task organize forces, the conversion uses only pure forces. Conversion is the initial step in identifying task organization, Planners make final decisions during the war game.

Step 5. Determine C^2 means.

Determining C^2 means over maneuver units, determining maneuver control measures, and determining fire support coordinating measures (FSCMs) are three separate actions; however, planners must combine them. Planners can determine C^2 means by allocating subordinate headquarters over the forces (task organization). During the allocation of subordinate headquarters, the planning headquarters ensures that planners do not exceed the span of control. As a starting point an MSC controls at least two subordinate maneuver units, but normally not more than five. If planners need additional headquarters, they note the shortage and resolve it later, possibly by placing some maneuver units under the control of the deputy commander/XO or by allocating these units to existing C^2 assets.

Control measures synchronize combat power at decisive points while minimizing the command's exposure to potential fratricide, but all control measures impose some constraints or restrictions on subordinate commanders, so effective commanders use them sparingly. Overuse of control measures can produce indecision, confusion, and fear and cause commanders to lose the initiative, which could cause the mission to fail.

Planners determine control measures by selecting the desired graphics to control MSCs during the operation. Planners base control measures on C^2 means and the scheme of maneuver. Control measures are the minimum control measures required to exercise procedural control over the operation. They include such operation parameters as boundaries, axes of advance, objectives, phase lines, assembly are-as, the LD/LC or FEBA, FSCMs, and so on.

Control measures do not split AAs or key terrain but task one unit with the responsibility for a certain area. Planners should provide space on the flanks of each AA to allow for maneuver and fires. The sector or zone the planner designates as the main effort may be more narrow than others, which would add weight to that sector. Sectors or zones for a secondary effort or economy of force may be wider than that of the main effort. When considering maneuver control measures, the planners should also develop phase lines to implement expected branches and sequels to facilitate change.

Fire control measures promote the synchronization of fire support with maneuver while minimizing exposure to fratricide. Commanders should use FSCMs sparingly; placing the coordinated fire line (CFL) as close as possible to the FLOT, consistent with close and deep operations of the plan, might enable rapid and effective employment of GS and general support-reinforcing (GSR) fires.

Step 6. Prepare COA statements and sketches.

The G3/S3 prepare a COA statement and supporting sketch for each possible COA. The COA statement provides the how of the operation. The sketch provides a picture of the statement. Together, the statement and sketch cover what, when, where, how, and why and should clearly and briefly state-

- The operation's purpose.
- The main effort or main attack.
- The scheme of maneuver. (State how your forces are executing a form of maneuver or pattern of defense.)

The statement also clarifies how major subordinate maneuver units will execute the higher unit's mission. The statement, with the sketch, must clearly portray *how the unit will defeat the enemy*, addressing, at a minimum the five key elements of organizing the battlefield (close, deep, and rear operations, security, and reserve). In addition, the statement must specifically explain the scheme of maneuver by outlining bow generic MSCs should accomplish the mission. It should identity the main effort as well as supporting efforts. If the planner identifies a sign&cant risk during COA development, he should state the amount of risk.

The planner would not necessarily state the who (specific subordinate units), but, if the comma&r, in his initial guidance, specifies the who, then the planner includes it. If the planner must use a particular subordinate unit (because of geographic dispersion, status of personnel, status of equipment, CSS, readiness, training, morale, or leadership), then he should include that unit in the statement.

At a minimum, the sketch should include planning headquarters and MSC unit boundaries; allocated forces, which helps provide a clearer picture of the scheme of maneuver; and control measures such as-

- Phase lines.
- Ground and/or air axes of advance.
- Zones of attack or defense sectors.
- Assembly areas.
- Strongpoints.
- Battle positions.
- Engagement areas.
- Objectives.
- The FEBA or LD/LC.
- Major obstacles.
- Fire support coordination measures.
- The main effort designated in the offense.

For clarity, planners can enhance the sketch with identifying features (cities, rivers, and so on) to help orient the COA to the ground for those who will use the sketch for analysis.

In the offense, decision graphics (fig 3-4) show the composition and position of MSCs; however, the position on a sketch which an MSC symbol occupies might not accurately portray the actual array. The&ore, MSCs occupy positions throughout the AO in such a way as to correspond to the axes of advance or within other control measure or boundaries.

In the defense, planners show the type and general location of allocated ground and air maneuver forces. As in the offense, the commander positions MSCs throughout the AO against enemy Ms. This, in turn, provides a clear picture of the COA. Again, an MSCs position does not reflect its subordinate units' positions.

Internal boundary lines define the composition of subordinate units by grouping allocated or positioned forces.

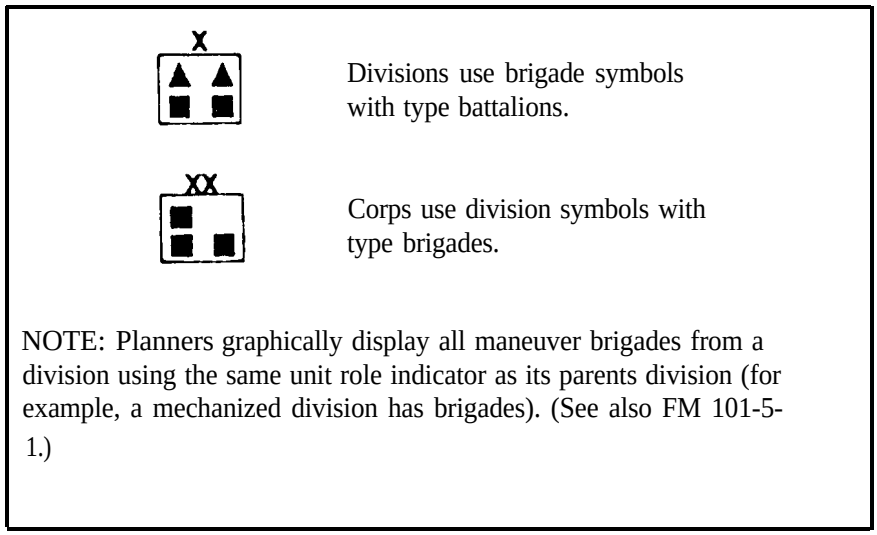


Figure 3-4. Examples of decision graphics.

3-3. KRASNOVIAN (SOVIET-STYLE) FORCE RATIOS

a. Infantry battalion unit equivalents (UEs),

Us infantry battalions		*Krasnovian infantry battalions*	
	UE	*Type*	*UE*
M2 bn	1.00	BTR-50 bn	0.35
M11 bn	0.71	BTR-60 bn	0.41
Inf bn	0.48	BTR-70 bn	0.60
Abn bn	0.73	BTR-80 bn	0.61
AASLT bn	0.70	BMP-1 bn	0.65
Armd cav sqdn	0.85	BMP-2 bn	0.70
		BMP-3 bn	0.77
		Inf bn	0.42
		Abn bn	0.51
		AASLT bn	0.41
		Recon bn	0.38
		AT bn	0.40
		AT bn (IMRB/AT regt)	0.45
		AT bn (AT bde)	0.49

b. Tank battalion unit equivalents.

US tank battalions

Type	*UE*
M1A1 bn	1.19
M1A2 bn	1.21

Krasnovian tank battalions

Type	*UE*
Tank bn/MRR (40)	
T-55	0.34
T-62	0.38
T-64	0.58
T-72	0.58
T80	0.77
Tank bn/TR(31)	
T-55	0.27
T-62	0.30
T-64	0.50
T-72	0.51
T-80	0.64
Independent tank bn (5 1)	
T-55	0.44
T-62	0.49
T-64	0.82
T-72	0.83
T-80	1.05

c. Artillery battalion unit equivalents.

US artillery battalions

Type	*UE*
M102 bn	0.80
M119 bn	0.80
M109A3 bn	0.90
M109A6 bn	1.00

Krasnovian artillery battalions

Type	*UE*
D30 bn	0.63
2S1 bn	0.71
2S9 bn	0.42
M46 bn	0.78
Composite bn	1.40
D20 bn	0.77

US artillery battalions

Type	*UE*
M198 bn (3 x 8)	1.02*
MLRS bn	4.60
MLRS btry	1.50
ATACMS B-1 bn	7.50
ATACMS B-1 btay	2.50
ATACMS B-2 bn	8.80
ATACMS B-2 btzy	2.90

*Lt div has 8 guns per btry.

Krasnovian artillery battalions

Type	*UE*
D20 bn (24)	0.83
D20 (18)	0.63
2S3 bn	0.85
2S5 bn	0.88
2A36 bn	0.86
2A65 bn	0.84
2S7 bn (12)	0.68
2S7 (24)	1.36
2S7 (18)	1.02
2S19 bn	0.90
2S23 bn	0.85
BM21 bn	2.94
BM21V bn	0.98
BM24 bn (12)	1.60
9A52 bn (SMERCH)	4.50
BM 22 bn	3.50
2S4 bn (12)	0.45
M240 bn (12)	0.40
FROG bn (4)	0.22
SCUD	0.80
SS-21 bn (4)	0.60
SS-1C (SCUD-B)	0.40

d. Attack helicopter battalion unit equivalents.

US attack helicopter battalion

Type	*UE*
AH-64 bn	2.81
AH-1 bn	2.05
Air cav sqdn	0.91

Krasnovian attack helicopter battalion

Type	*UE*
HIND-D bn	1.90
HOKUM bn	2.70
HAVOC bn	2.65
(HIND-E) bn	2.05

e. Air defense battalion unit equivalents.

US air defense battalion

Type	*UE*
ADA bn	0.21
Hawk bn	0.16
I-Hawk bn	0.19
Patroit bn	0.59

Krasnovian air defense battalion

Type	*UE*
SA-6 bn	0.11
SA-8 bn	0.13
S-60 bn	0.34
SA-4 bn	0.46
SA-11 bn	0.54
SA-12 bn	0.50
SA-17 bn	0.76

Krasnovian antitank battalion

Type	*UE*
AT bn (div)	0.21

3-4. SAMPLE COURSE OF ACTION STATEMENTS AND SKETCHES

a. 10th (US) Corps course of action statement.

On order, 10th (US) Corps defends in destroy the 2 Army and *front* reserve forward of PL FERMI to cause the defeat of the 2 Western *Front.*

The corps defends initially with a covering force of an ACR and a separate brigade. The covering force conducts battle handover with the 7th (GE) Pz Gren Div at PL NEUTRON, completes the destruction of the first-echelon regiments of the first-echelon divisions, and delays the enemy east of PL PLANCK for 24 hours. Corps deep operations employ AI and deep fires to delay and disrupt the second-echelon divisions of the 2 Army.

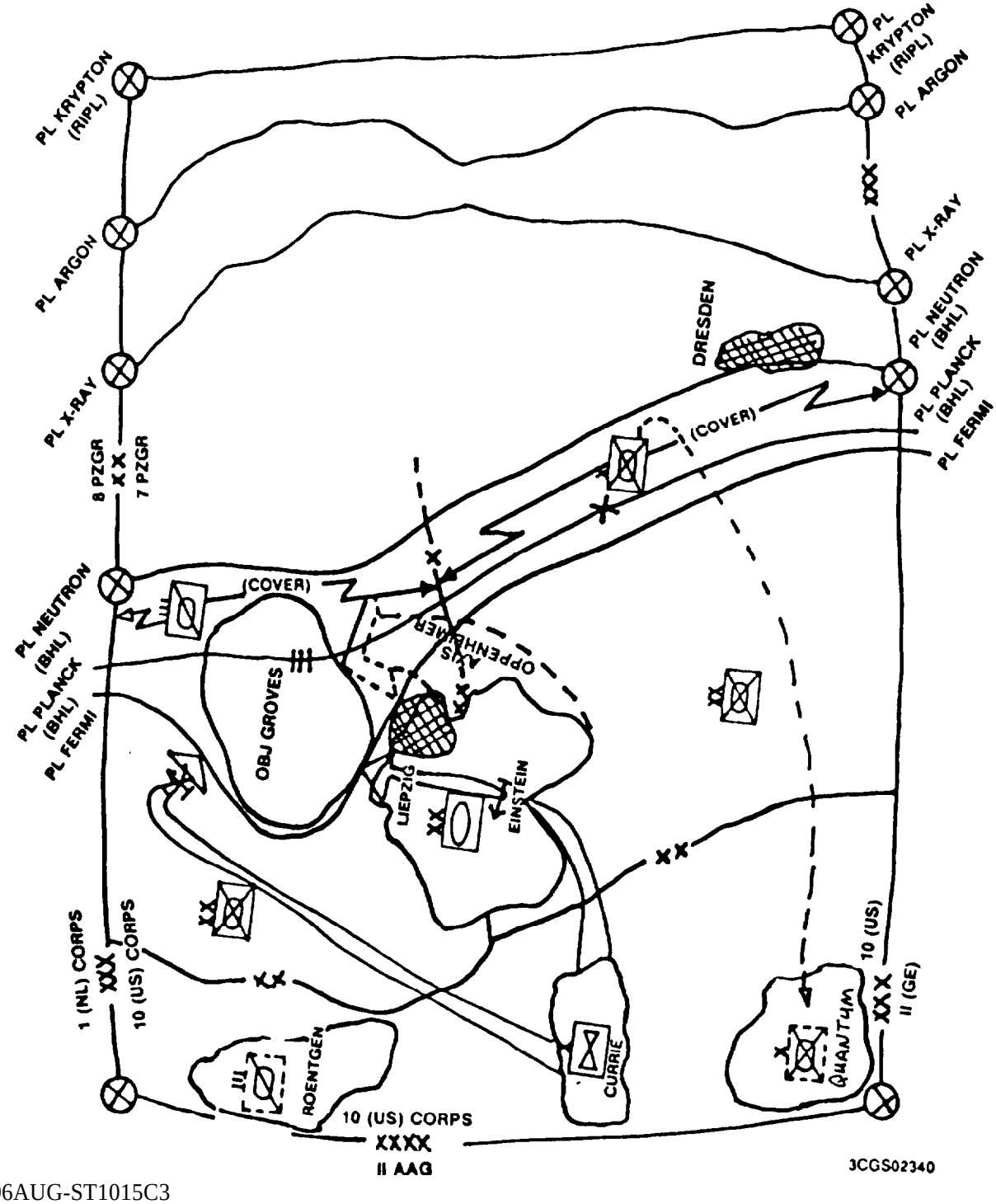
Corps covering force will conduct battle handover with MBA divisions at PL PLANCK and move to assembly area ROENTGEN (ACR) and assembly area QUANTUM (sep bde) to reconstitute. Corps conducts area defense in the MBA with two mechanized divisions abreast. Division in the north is the main efforts; division in the south is the supporting effort. MBA divisions destroy second-echelon regiments of the first-echelon divisions and the second-echelon divisions of the 2 Army while defending to PL FERMI. On order, the main effort (in north) will allow a salient approximately 35 kilometers deep to form along PL FERMI to create the appearance of success for the enemy. The salient will draw the commitment of the IMRR (2 Army reserve) and the 42 TD (2 Western *Front* reserve) to the north. AI and deep fires will delay, disrupt, and canalize the IMRR and the 42 TD advances into the northern portion of the corps sector. The corps attack helicopters will assist in shaping the enemy penetration along the flank of the salient and then blunting the enemy penetration along PL FERMI.

The main efforts in the north blocks the penetration along PL FERMI and defeats the IMRR. On order, an armored division counterattacks (corps main effort) from assembly area EINSTEIN to destroy the remnants of the IMRR and the 42 TD in objective GROVES.

The corps completes operations and postures to continue defending with the armored division in the north along PL PLANCK and a mechanized division in the south along PL FERMI. The mechanized division in the north becomes the corps reserve on order.

The corps accepts risk initially by not designating a reserve or TCF. On completion of the covering force operation and rearward passage to assembly areas, the ACR will initially become the corps reserve with priority to block any penetration of PL FERMI in the north and the separate brigade becomes the corps TCF.

b. 10th Corps course of action sketch.



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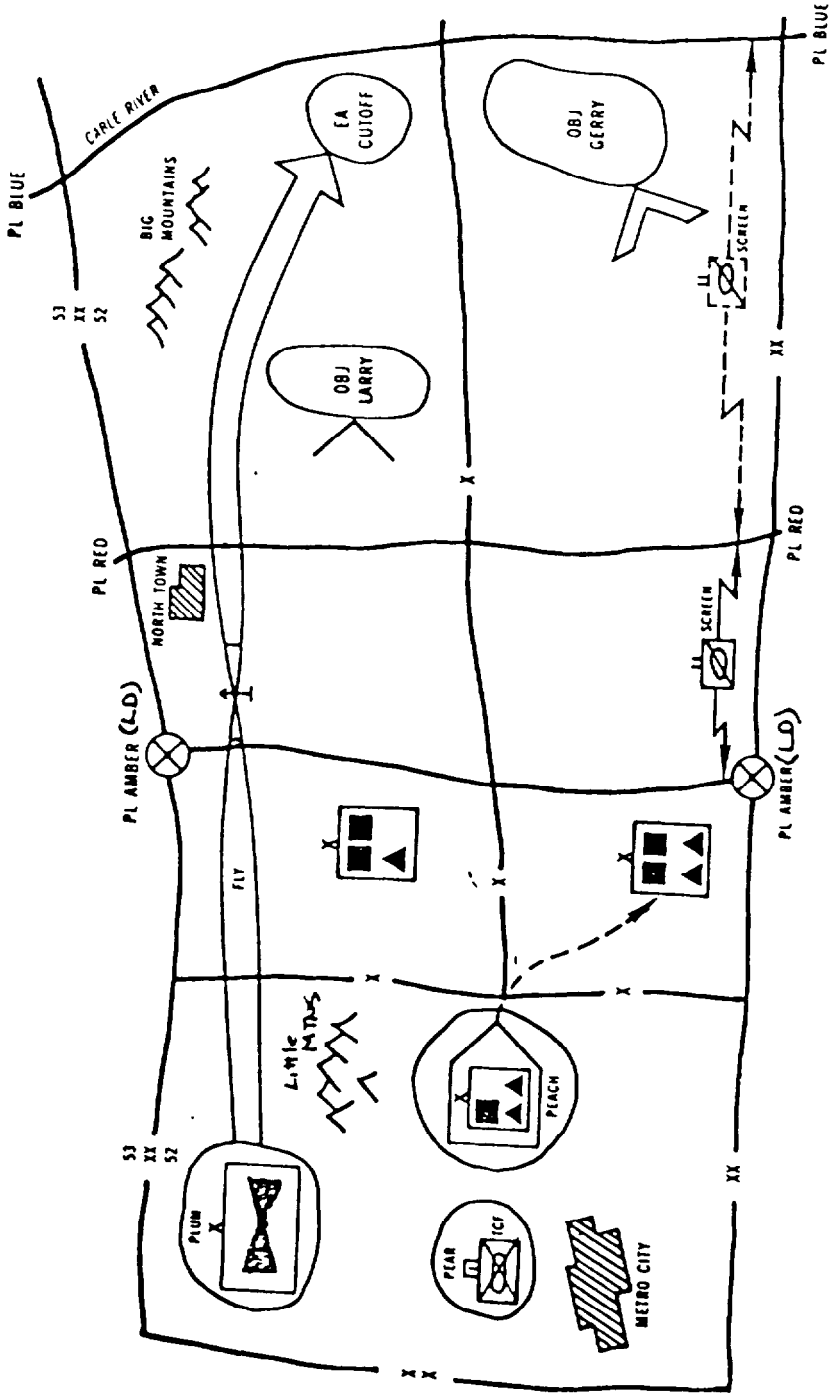
c. Course of action statement and course of action sketch (division offense).

On order (OO), mechanized division attacks with a mech-heavy brigade initially conducting a supporting attack in the north to seize obj LARRY and fix enemy forces in zone. A balanced brigade conducts the main attack in the south to seize obj GERRY. An armor-heavy brigade in AA PEACH follows the main effort and serves as the division reserve, with priority of commitment to the main effort. Division aviation brigade conducts deep operations along axis FLY to defeat threat counterattack forces vic EA CUTOFF. Division cavalry squadron screens southern flank from PL AMBER to PL RED; OO, screens from PL RED to PL BLUE. A mech company team in AA PEAR serves as the TCF. On completion of this operation, the division must be prepared to continue offensive operations to the east.



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CHAPTER 4

COURSE OF ACTION ANALYSIS AND COMPARISON

4-1. INTRODUCTION

Course of action analysis consists of feasibility check, war gaming, risk assessment, and comparison of war game results. Any course of action that is determined by any part of the staff as not feasible in terms of time or space needs or means required should be modified or discarded, A war game is an attempt to compare each COA against possible enemy COAs. The staff uses risk assessment to identify the probability and severity of fratricide and other hazards and to identify what, where, and when C^2 measures would reduce risk. After war gaming and risk analysis, staffs compare COAs to select the one with the greatest probability of success.

Course of action analysis helps the commander determine how to maximize, balance, and bring to bear combat power against the enemy while also protecting the friendly force. More specifically, completing COA analysis helps the commander and his staff-

- Clearly identity the commander's vision of the battle.
- Anticipate battlefield events.
- Determine conditions and resources required for success.
- Discover the strengths and weaknesses of a course of action.
- Identify coordination needed to produce synchronized results.
- Determine task organization for combat.
- Integrate the targeting process.
- Develop the intelligence-collection plan.
- Determine c^2 measures.
- Determine procedural and positive control measures.
- Determine decision points.
- Determine information and intelligence requirements, including facts and assumptions.
- Develop a scheme of maneuver and a deception plan.
- Determine the most flexible course of action.
- Determine CP locations.

During war gaming, the commander and his staff consciously visualize the flow of battle. The G3/S3 leads the staff in a war game of each COA against possible enemy COAs, starting with those which the commander specifically addresses War gaming relies heavily on tactical judgment and experience. It focuses the staff's attention on each phase of the operation in a logical sequence. It is a step-by-step process of action-reaction-counteraction.

During the war game, the comma&r and his staff may change, modify, or develop a new course of action after identifying other critical events, tasks, requirements, or problems. As a result, the staff determines that force allocations (including combat support and service support), disposition, and the scheme of maneuver are adequate or need adjustments as appropriate. The staff also identifies shortfalls, mission hazards, risk reduction measures, and possible future developments or options for the plan or order. Unacceptable conditions or risks render a course of action infeasible. General war gaming rules include the following:

- Remain unbiased.

- Accurately record advantages and disadvantages as they become evident.

- Continually assess feasibility.
- Avoid drawing premature conclusions and gathering facts to support such conclusions.
- Avoid comparing one COA with another during the war game.
- The commanders decides which COA will become the base plan and what branch or sequel plans should be developed.

4-2. WAR GAMING STEPS

During the war gaming process (fig 4-1), the staff follows these eight steps:

Step 1. Gather the tools.
Step 2. List all friendly forces.
Step 3. List assumptions.
Steps 4. List known critical events and decision points.
Steps 5. List significant factors.
Step 6. Select the war game method.
Step 7. Select a technique to record and display results.
Step 8. War game the battle and assess the results.

In time-sensitive situations at lower echelons, an experienced staff, the commander himself, or the commander and a selected few individuals may mentally perform the entire process in a relatively short time.

Step 1. Gather the tools.

The commander selects the enemy COA to be war gamed first: the war gamer selects the friendly COA to be war gamed. The war gamer also posts the map of the area of interest, the enemy template, and the current friendly unit dispositions.

Step 2. List all friendly forces.

The commander refers to that stage of the tactical decisionmaking process in which he identified and listed available forces (mission analysis). He considers all organic, assigned, attached, and combat, CS, and CSS units under operational control (OPCON) he can commit to the battle. He observes their support relationships and any constraints and restrictions the next higher commander imposes. He also includes the priority of support that higher headquarters provides and such assets as air support (close air support (CAS), AI, surveillance and reconnaissance (S&R), or joint air attack team (JAAT)) sorties. Ho must be aware of all available resources. He then considers all available combat-power multipliers, including, but not limited to---

- EW (consisting of electronic support (ES), electronic attack (EA), and electronic protection (EP)).
- Surprise.

- Deception
- Terrain reinforcement.

The force list remains constant for all COAs the staff analyzes. By keeping track of forces and assets, he can mentally allocate resources, assign missions to subordinate CS and CSS units, and identify shortfalls.

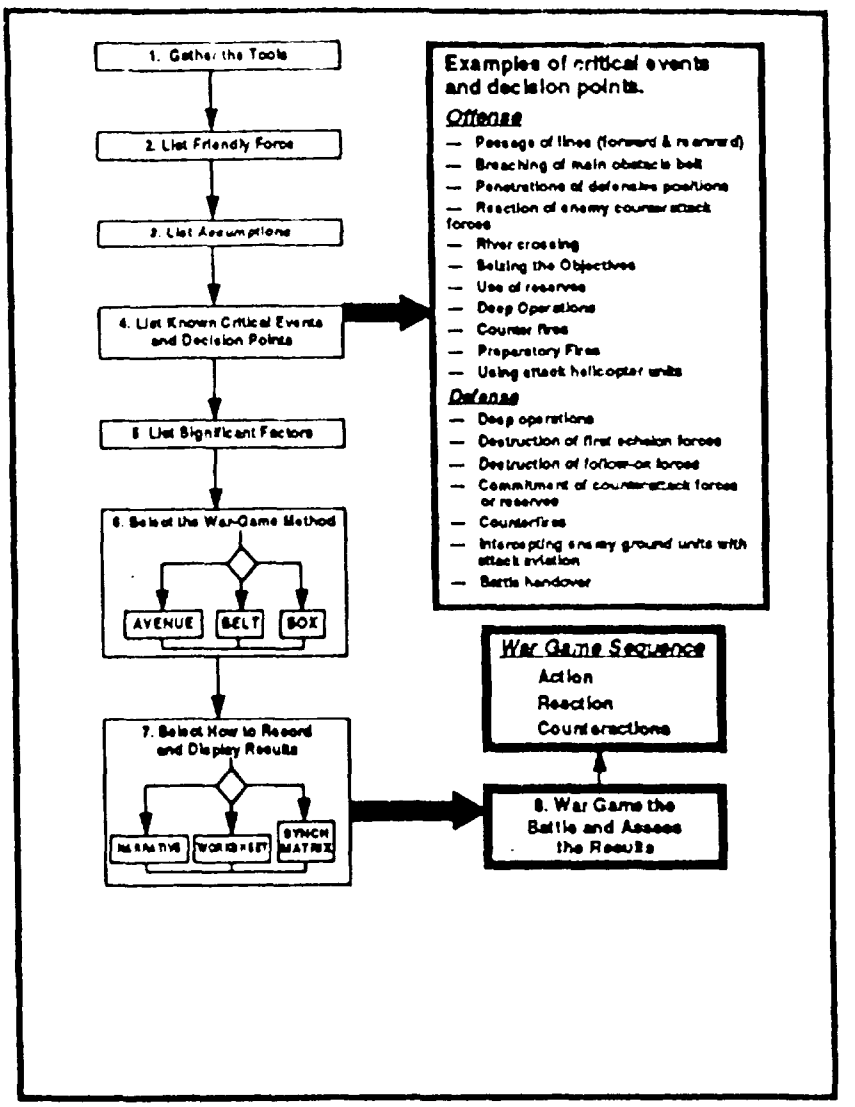


Figure 4-1. War gaming steps.

Step 3. List assumptions.

Assumptions are valuable war-gaming tools. They help shape a COA. The commander tests the validity of each assumption against the question, “Is the assumption likely to occur?” If the answer is "No," the assumption is not valid. An assumption must be logical and realistic and must be stated positively.

Many assumption are already stated in the higher headquarters OPLAN. The staff develops other assumptions during various stages of the estimate process. They also make assumptions concerning flank

activities, enemy strengths, some enemy activities, friendly activities, and other factors. Some of these activities may be beyond the unit's control (such as the availability of troops, aircraft sorties, and the success of flank units). The staff must not assume away problems or paint improbable worst-case situations. They must war game against each enemy option.

Step 4. List known critical events and decision points.

Critical events are essential tasks that, in the commanders's judgement, require detailed analysis. Decision points relate to identified critical events. These points identify (in time and space) decisions that the commander must make to ensure timely execution and synchronization of resources. They also help achieve the desired effects on the battlefield. The should list major events from the unit's current position to the unit's final objective. The commander and staff may also consider other critical events and decision points during the war game. The staff must keep the critical events and decision points list manageable in accordance with time available for planning.

Step 5. List significant factors.

Significant factors help determine the advantages and disadvantages of a COA. There are two type of significant factors. The first derives from the commanders's guidance and intent, higher intents, constraints, restrictions, and mission. The first group of significant factors requires the war gamer to examine the COA and ask the following questions. Does the COA-

- Concentrate forces at vital points?
- Provide balance between mass and dispersion?
- Succeed despite terrain alterations?

If the COA under consideration does not satisy these factors at any time during the analysis, the staff must modify or discard it.

The second group of factors derives from doctrinal fundamentals. Examples include, but are not limited to---

- The principles of war.
- Tenets of Army operations doctrine.
- Optimum use of C^2 headquarters.
- Ability to conduct future (sequel) operations.
- Flexibility to address various enemy maneuver options.
- Mutual support (especially along flanks).
- Security.
- CSS sustainability.
- Tactical deception.

The second group of significant factors requires the war gamer to examine the COA and ask the following questions. Does the COA-

- Provide prop forces for the terrain and mission?
- Facilitate future operations?
- Employ OPSEC?
- Employ deception?
- Exploit enemy vulnerabilities?
- Consider flexibility versus enemy options?

An stated earlier, the answers to the questions in the first group must be yes, and the answers to the questions in the second group may be yes or no. The staff then determines whether or not each factor is a strength or a weakness for the COA under consideration and uses that information to help compare one COA to another.

Step 6. Select the war game method

To analyze a COA, the commander and staff can use the belt technique, the avenue-in-depth technique, the box technique, or a technique of their own devising, and they can use these techniques separately or in combination. These techniques consider every area and enemy unit that could affect the outcome of the immediate fight. They also consider future operations throughout the close, deep, and rear operations arenas to secure the initiative early, exercise it aggressively, and synchronize weapons, assets, and combat multipliers to throw the enemy off balance and to follow up rapidly to prevent the enemy's recovery.

- *The belt technique (fig 4-2).*

The belt technique divides the battlefield into areas (belts) running the width of the sector. As a minimum, belts should include the following:

-Initial contact either along the FLOT or LD/LC or in the CFA.

-Initial penetration or initial contact along the FEBA.

-Passage of the reserve or commitment of a counterattack

This technique is based on sequential analysis of events across the width of a unit's sectors. It is the preferred method because it ensures simultaneous consideration of all forces affecting a particular event.

When using the belt technique, the commander determines the exact shape of the belt based on battlefield analysis. He must remain aware that a belt might include more than one critical event. In the offense, the commander must consider three phases; the assault or penetration phase, the exploitation phase, and the pursuit phase. In the defense, he must examine the battle, in sequence, in the CFA, in the MBA, and in the rear area.

The belt technique is most effective when terrain is divided into well-defined cross-compartments. It is also good during phased operations (including amphibious assaults, river crossings, and air assault and airborne operations) or when the enemy is deployed in clearly defined belts or echelons. The commander can then draw belts adjacent to of even overlapping each other for complete battle visualization.

When time is short, the commander can use a modified belt technique. The modified technique divides the battlefield into not more than three sequential belts that run the width of the sector. These belts would not necessarily be adjacent or overlapping; they would focus on actions throughout the depth of the area of operations.

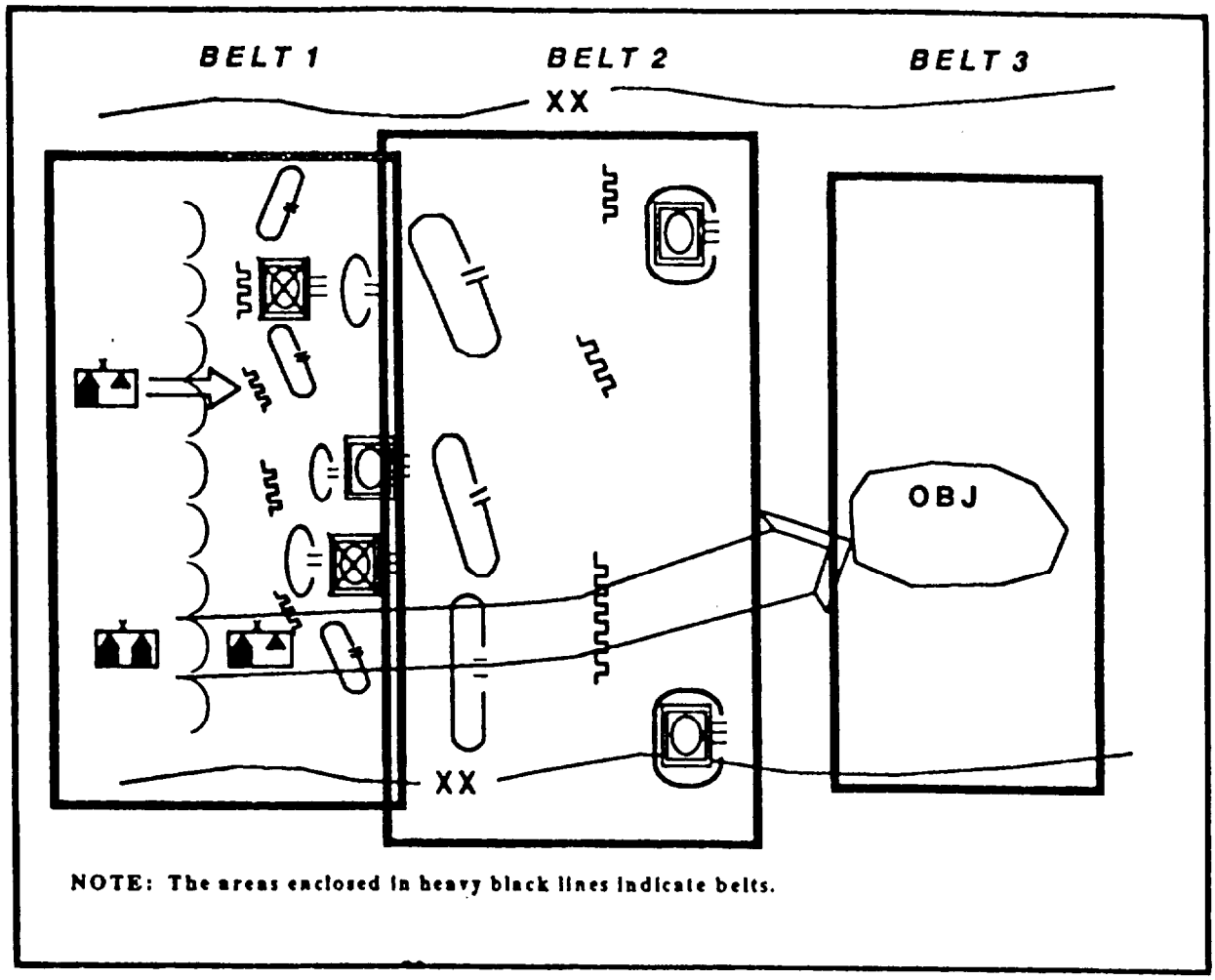


Figure 4-2. Belt war gaming technique.

- *The avenue-in-depth technique(fig 4-3).*

The avenue-in-depth technique focuses on one AA at a time, beginning with the main effort. This technique is good for offensive COAs or in the defense when there is canalizing terrain inhibiting mutual support.

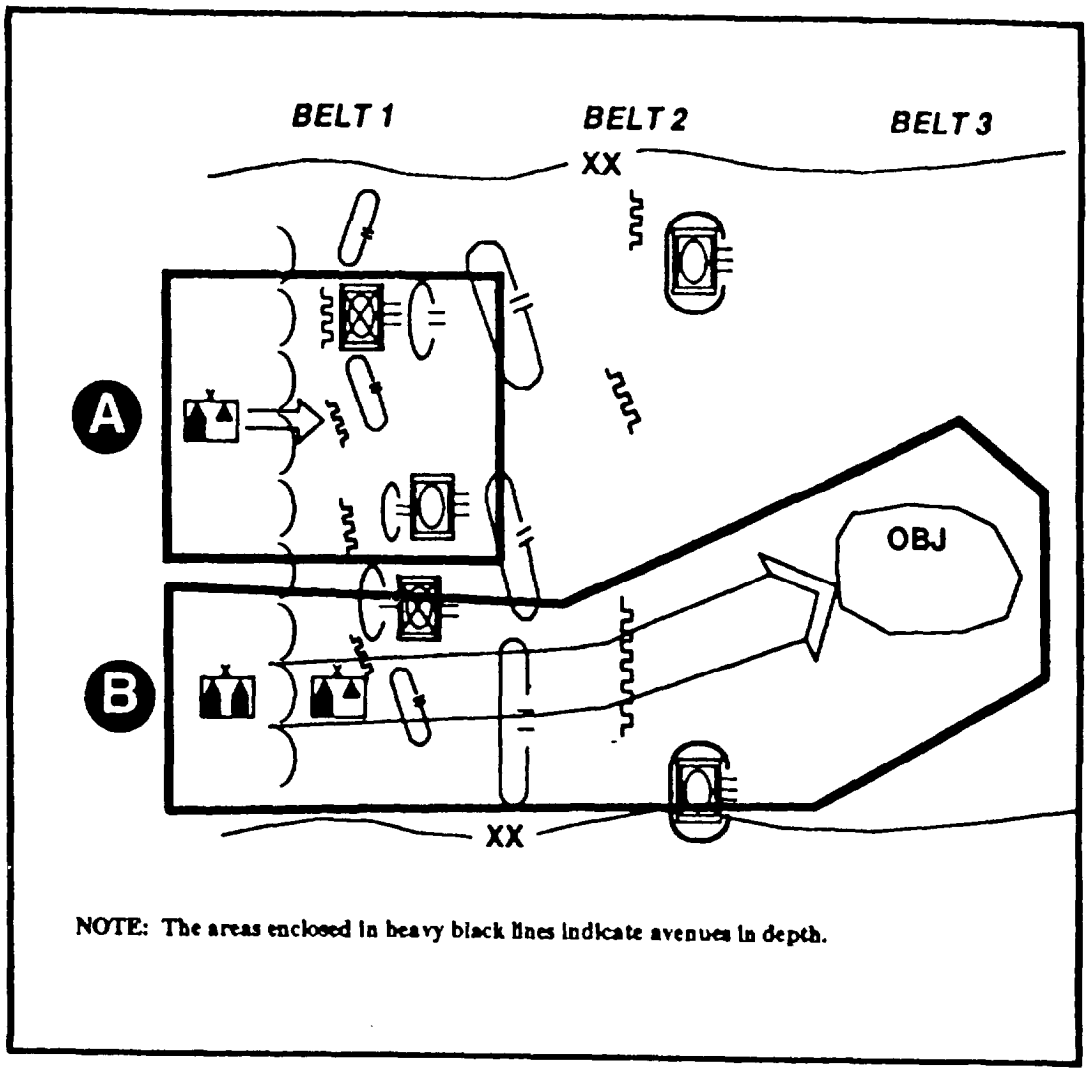


Figure 4-3. Avenue-in-depth war-gaming technique.

- *The box technique (fig 4-4).*

The box technique is a microanalysis of a critical area (such as an EA, a river-crossing site, or a flank AA into the sector). When using this technique, the war gamer isolates the area and focuses the battle there. He makes the initial assumption that friendly units can handle most of the situations on the battlefield while he focuses his attention on more essential tasks.

This technique is most useful when the task is apparent, as when attacking or counterattacking a major enemy unit. It is also a good technique to use when time is extremely limited, as in a hasty attack.

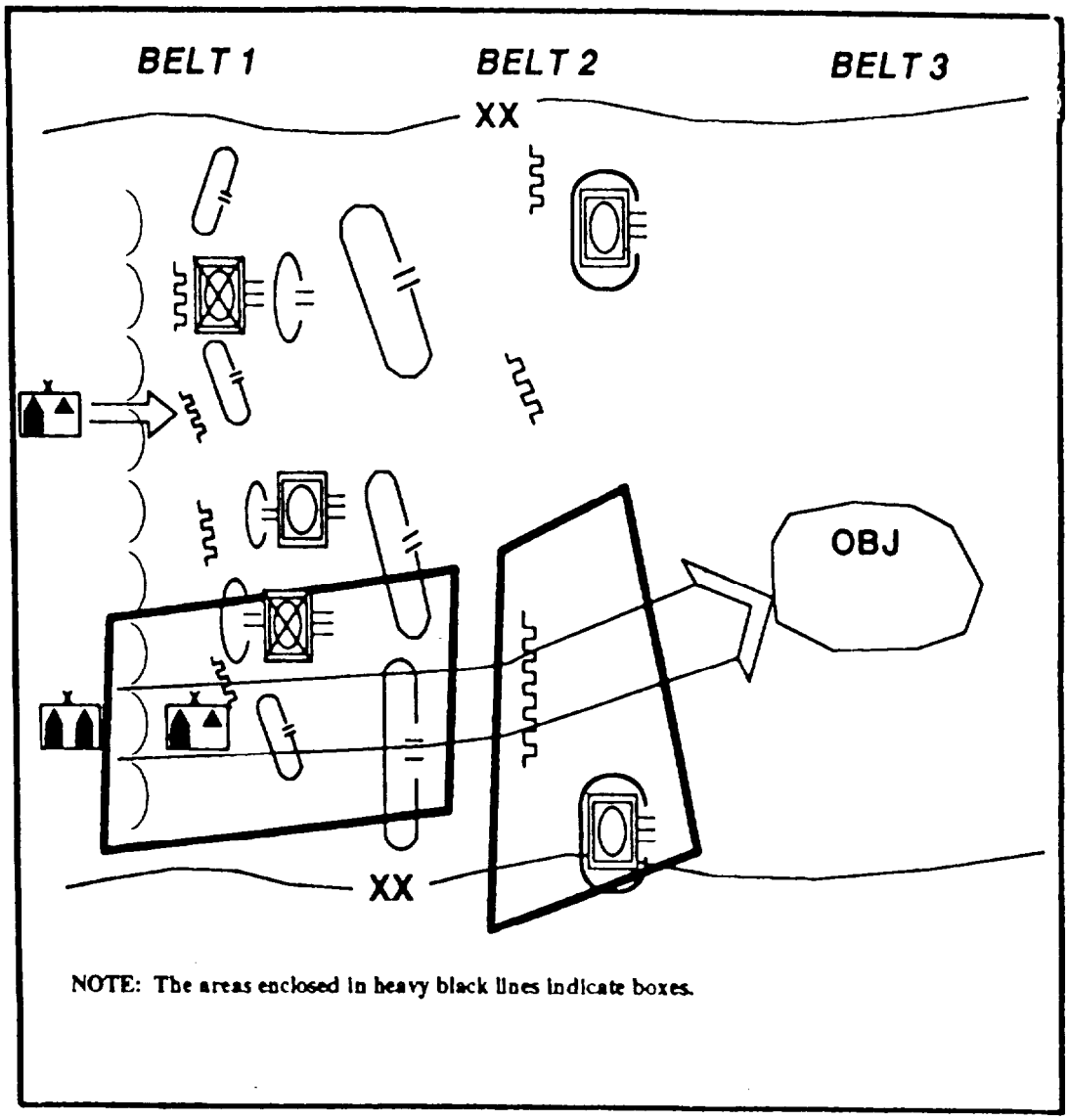


Figure 4-4. Box war-gaming technique.

Step 7. Select a technique to record and display results.

Recording the war game's results gives the staff a record from which to build task organizations, synchronize activity through coordination, develop DSTs, confirm and refine event templates, and prepare plans or orders. The COA statement becomes the basis for paragraph 3a(1) of the OPLAN or OPORD, and the COA sketch becomes the basis for the operation overlay. The sketch also provides the staff with a record of any annotations of the strengths and weaknesses found during comparison. Two possible ways to portray the action are the narrative and the sketch note.

- *The narrative technique (fig 4-5).*

The narrative technique describes the operation in sequence in sentence form. This technique provides extensive detail and clarity. The major drawback is the volume of information which results. It is also time-consuming.

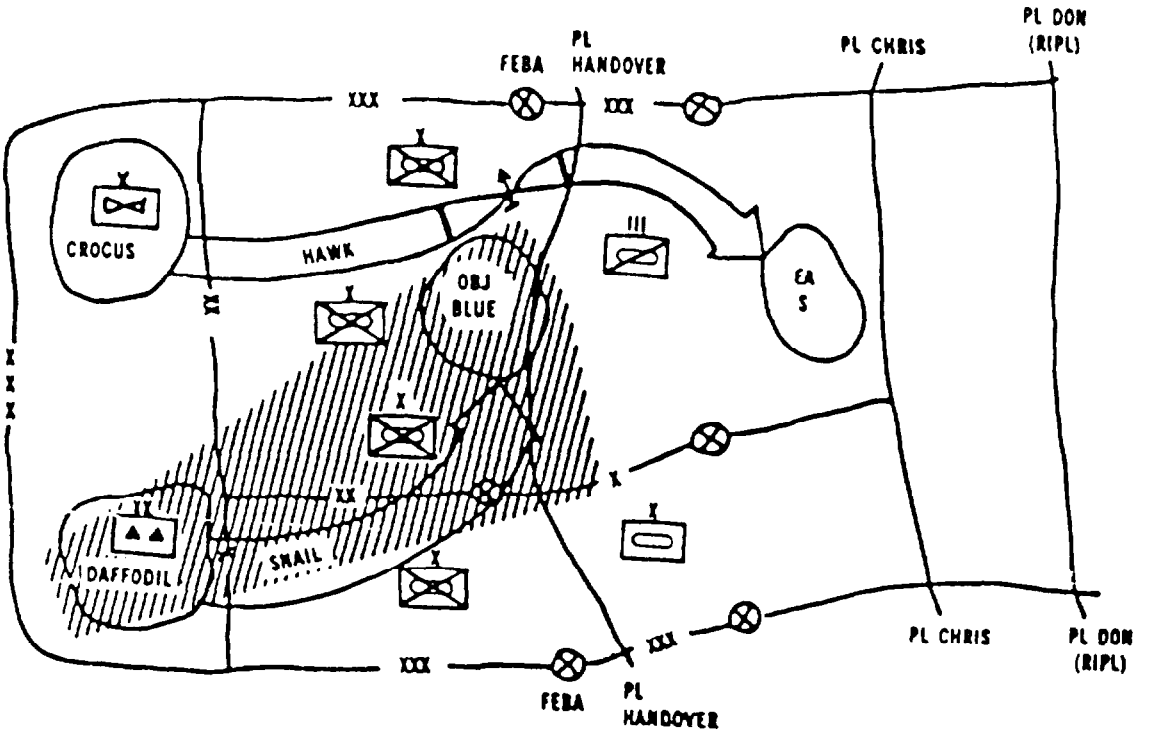
- The sketch note technique.

The sketch note technique uses brief notes concerning critical locations or tasks. These notes reference specific locations on the map or relate to general considerations covering broad areas. The commander and staff make these notes on the map, on a separate war-game worksheet (fig 4-6), or on a synchronization matrix (fig 4-7). The staff uses sequence numbers to reference the notes to the corresponding locations on the map or overlay, using the same number on the war-game worksheet and the map or overlay for easy reference. They can also identify actions by grouping them into sequential action groups, giving each subtask a separate number. For example, one numbering procedure uses a three-digit system; i.e., 1A3. The first figure refers to the event number (In this case, the "1" indicates the first critical event to be war-gamed.) The second figure indicates the time period in which the subevents occur in relation to the overall event. "A" means the actions before the actual event; "B" means actions during the events; "C" means actions after the event. The third figure identifies the chronology of subevents. (In this case, the "3" indicates that the subevent was the third one to occur.)

The staff can use the war game worksheet to identify all pertinent data for a critical event for a headquarters conducting the war game. They assign the event a number and a title and use the columns on the worksheet to identify and list in sequence-

- Actions (tasks) and assets (allocated forces).
- Expected enemy reactions.
- Counteractions and assets.
- Total assets they will need for the task.
- The estimated time they will need to accomplish the task.
- The decision point when the commander must decide to execute the task.
- The CCIR.
- The necessary procedural and positive (P') control measures.

They can also record any remarks regarding the strengths and weaknesses they discover. The amount of detail depends on time available.



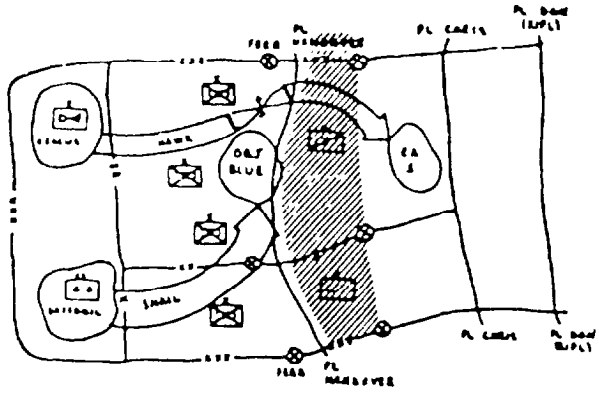
NARRATIVE WAR GAME

CORPS DEFENSE

CRITICAL EVENT: Corps Counterattack-Box 1

As the follow-on tank division (TD) approaches the FLOT, the MBA units will both have fought significant fights but will be well disposed along the FEBA. The enemy will probably commit the TD along the avenue that has produced the mod significant results. We feel that this will be along the avenue just to the north of the division-separate mechanized brigade boundary. The MBA division may have sufficient combat power to defeat this TD if the disruption efforts of the corps deep operations have been successful. While we hope that this will be the case, we feel that the enemy is moat likely to penetrate our defenses in the vicinity of objective BLUE. The corps counterattack force, a division (minus), will plan a counterattack to destroy any force making a significant penetration into this area. As this is the area where we feel the enemy will more than likely come, we are well prepared for it by the initial placement of the counterattack force. The MBA division will support the counterattack by holding the shoulders of this penetration. The penetration will be shaped so that the division (minus) attacks the southern flank while the MBA division blunts the penetration. At the conclusion of this operation, the corps will defend along the FEBA with the MBA division in the north; the corps counterattack force, a division (minus), in the center; and the separate mechanized brigade in the south. Priority of engineer support to the MBA division to prepare positions to hold the shoulders of the penetration, then to ensure mobility of the counterattack force. The aviation brigade will be prepared to support the counterattack into objective BLUE. ADA priority to protecting the move of the counterattack force. IEW assets confirm the commitment of the enemy into objective BLUE and identify any follow-on forces.

Figure 4-5. Sample narrative war game: corps defensive course of action.



NARRATIVE WAR GAME

CORPS DEFENSE

CRITICAL EVENT: Covering Force Battle – Belt 1

Sequence	ACTION	REACTION	COUNTERACTION	ASSETS	TIME	REMARKS
1	Move into positions. Remain dispersed for max protection. Monitor enemy nets. Lolocate CPs and FA units.	Conduct recon to find BPs and gaps in covering force units. Enemy S&R from front and army.	Conduct counterrecon activities. Strip away army, div, & regt recon elements. Maintain listening silence. Emphasize deception and building BPs and FA positions for CI. Corps AI program out to RIPL* slow 2d-ech forces.	ACR, maneuver bde, tgt acq btry, 8 FA bns, MI, ADA engr assets.	H - 36 to H - 7	CFA must be portrayed as MBA. FCS to ACR & DIVARTY. priority fires to MRLs, DAG, RAGS, engr OPCON CF
2	Prep for ground assault. Alert ADA systems for fixed wng & hel CAS. ID enemy air atk ave	Conduct FA prep on BPs, CPs, FA locations. Jam cmd, fire nets, and ADA warning system. Atk with fixed and hel CAS. Counter air program with air and ADA.	Loc FA firing position and nets. CI and jam. Employ CA and ADA.	Tgt acq btry, MLRS, 8 FA bns, ADA plt per bn/coun, S&R, counterair	H - 7 to H-hour	Priority fires to MRLs, DAG, RAGs. ADA OPCON to CF. ADA coord w/regional AD plan.
3	Enemy atks with 1 regt on ave A, 2 regts on ave B, 2 regts on ave C, 2 regts on ave D although sometimes forced to 1 regt. Enemy main atk on aves B & C.	ACR holds on ave A, fight main fight on aves B & C. Maneuver bde holds ave D. Must force lead divs to commit 2d-ech regts to ID main effort.	Economy of force on aves A & D, continued atks on aves B & C. Heavy FA, CAS, & commitment of 2d-ech regts to force a breakthrough.	ACR, maneuver bde, 8 FA bns, CAS.	H - hour to H + 10	CF must hold on aves A & D. Strong fight on aves B & C cause enemy to deploy 2d-ech regts
4	Enemy commits 2d-ech regts of 1st-ech div on aves B & C. Cont economy of force on aves A & D.	ACR fights main fight on aves B & C. Corps control of CF fight difficult. Must now allow exposed flank between the 2 CF units. MBA units prep for handover	Enemy presses hard to force breakthrough. Attempt to find handover and disrupt transition to MBA fight. Attempt to break seam between ACR and maneuver bde.	ACR, maneuver bde, 8 FA bns, CAS, spt from MBA units.	H + 10 to H + 15	MBA units prep for battle handover. FA plans for displacement of MBA.

* Reconnaissance and interdiction planning line (RIPL): a phase line that &tines the corps area of responsibility. The RIPL is drawn on the operation map to delineate the area forward of the corps fire support coordination line into an area for the corps to target AI missions short of the RIPL and an area for the army group/allied tactical air force to target air interdiction (AI) missions beyond the RIPL. (Ihis is a NATO term only.)

Figure 4-6. Sample war game worksheet: corps defensive course of action.

	TIME	-18 hr	-14 hr	-12 hr	-8 hr	H hr	+6 hr	+10 hr
	ENEMY ACTIONS		Enemy monitors movements Continue deep prep				Fights from 1st belt pen	Defend from 2nd belt pen
	DECISION POINTS	Initate movement from AA ROSE					Launch deep attack	
M	DEEP						Avn Bde attacks ret in EA ACE	
A	SECURITY	Recon secures routes	CAV prep to screen north flank			CAV screen north flank		
N	CLOSE		1BDE moves on route 1 & 2	2BDE moves on route 3 & 4		BDE cross LD/LC	1BDE seize OBJ LARRY	
E	RESERVE			3BDE moves on route 1 & 2				
U	REAR				TCF moves on route 3			
V	AIR DEFENSE	Weapons HOLD			Weapons TIGHT	Protect lead bde	Weapons FREE	Weapons TIGHT
E	FIRE SUPPORT					Prep fire	Provide DS/GS	Fire SEAD
R	IEW	Confirm 2d belt and FAAG pen		Confirm reserve pen		Conduct non-lethal fires	Confirm counter movement	
	ENGINEER		Route maintenance				Prepare fwd log sites	
S	MAN		Replacement s held at div					
U	ARM		Cache arty ammo				Establish fwd sl V pt	
S	FIX		Cannibalization authorized at DS level		Establish div MCP			
T	FUEL					Refuel Bdes	Establish fwd sl HI pt	
A	MOVE		Initate movement from AA ROSE				Move stocks fwd	
I	SUSTAIN		Finance service suspended			Establish AXP M1	Establish AXP M2	Finance service reinstated
N	C4C			TAC CP with lead BDE		Div rear boundry moves east of PL BOB		Main CP prepares to move
M								
E								
N								
T								

Figure 4-7. Sample synchronization matrix of division offensive COA.

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- *A synchronization matrix* allows the staff to record the results of war gaming and synchronize the COA across time, space, and purpose in relation to the enemy's most likely COA. The staff can readily translate a synchronization matrix into a graphic decisionmaking product such as a DST. The staff should develop these two products simultaneously.

The G2/S2 or G3/S3 records the first entry (time) as the staff visualizes the operation. (Once established, the time relationship is relevant regardless of the actual time events occur.) The second entry, which the G2/S2 determines to be the most likely, is the enemy action. The staff then keys the enemy COA to the friendly COA. This ensures that units attack the enemy in depth while simultaneously considering their rear and reserve forces. The staff can develop the remainder of the matrix around the BOS or functional areas or the MSCs of the unit conducting the war game.

Regardless of the format, the staff can adapt the synchronization matrix to fit their needs. They should also incorporate into the matrix other operations, functions, and units to be integrated or whose use the staff wants to highlight. Areas which the staff can include are C^2, engineering, special operations (deception, for example), and employment of assets (Army aviation, AF support, designated TCF). The staff can show these as separate line entries or combine them with existing entries.

Of particular concern during analysis is how to synchronize available assets. The staff must consider all of the headquarters' assets and capabilities and determine any shortfalls in required assets. Using a simple form listing all the types of assets and the specific units available helps the staff keep from using a unit twice or from overcommitting a unit based on the result of a previous engagement.

Whatever the technique used, the entire staff must participate. The time available to the commander and his staff determines how much detail they can add to the war game. They can use the time column of the war-game worksheet to record the estimated time they will need to perform subevents; however, unless time is critically short, they must not cut the war-gaming process short.

Step 8. War game the battle and assess results.

War gaming allows the staff to analyze each selected event by identifying the components (subevents or tasks) the force must accomplish one echelon down using assets two echelons down. Identifying the COA's strengths and weaknesses allows the staff to make adjustments as necessary. Again, war gaming is a conscious attempt to visualize the flow of a battle, given friendly dispositions, strengths, and weaknesses; enemy assets and probable COAs; and the area of operations.

During war gaming, the commander tries to foresee the dynamics of a battle's action, reaction, and counteraction. During visualization, he tries to identify-

- Tasks, to determine which tasks he must retain and which tasks he will assign to his immediate subordinate commanders.

- Task organization, to determine which forces he must control in the general support of his command versus the allocation of combat, CS, and CSS assets which enable immediate subordinate commanders to accomplish their tasks (by synchronizing their forces) and to maximize their agile employment in branches or sequels.

- Synchronization, to determine what effects GS forces and maneuver forces must produce. (The sequential ordering of events is related, when possible, to time. As a minimum, the events must correlate to ambient light conditions.)

- Command and control, to determine what essential C^2 measures will produce synchronized results among joint, allied, or coalition forces, his own GS forces, and his maneuver commanders; where the decision points are located; and what information he will need to make his decision at each point.

For example, corps gives maneuver brigades to divisions. Therefore, the corps G3/S3 analyzes corps critical events by visualizing how divisions will use maneuver brigades or how corps will use separate brigades. At the same time, the corps G3/S3, with the other staff planners, tries to identify how CS and CSS assets will support subevents (tasks). The corps G3/S3 bases his use of brigades on a general understanding of how a brigade operates. He does not need to understand how the brigade commander will employ all of his internal elements. The division G3/S3 analyzes tasks by how brigades use battalions. Again, k does not need to understand how the battalion commander will employ all of his internal elements. what is important at all levels is that each maneuver unit has a self-sufficient, but not necessarily equal, combat capability to accomplish its assigned tasks.

The G3/S3 does not consider or record actions and assets more than two echelons down. He continues battle analysis until k achieves the purpose (why) of the COA or until friendly forces become combat ineffective.

Again, war gaming begins with visualizing the battle from initial unit locations determined during COA development. Therefore, tk G3/S3 should follow a logical sequence within the method selected (belt, avenue-in-depth or box technique) for organizing the area of operations.

In the defense, the G3/S3 visualizes initial contact with enemy reconnaissance units and the overall covering force battle, if appropriate. He validates the C^2 arrangement and then &fines CS requirements. Thus, k gains insight into how and when the enemy will arrive at the MBA based on how the commander intends to orchestrate and synchronize the battle in the CFA.

While visualizing combat in the MBA, the G3/S3 looks for ways to seize the initiative, such as using spoiling attacks or counterattacks. Based on events in the MBA, he visualizes movement of enemy follow-on forces to identity opportunities for deep operations. If the major threat is a penetration of the FEBA, k considers the options available to the enemy commander in using airborne or air assault units. He tries to visualize when and where he will need CAS and AI. Throughout the process, he visualizes deep operations and rear operations in the same manner.

In the offense, the G3/S3 begins visualization as friendly forces cross the LD/LC to make initial contact with the enemy. He focuses on breaching the obstacle belt and rupturing the first defensive belt for the level he is war gaming. Once k visualizes the initial rupture, he shifts his analysis to the next area to k war gamed. He considers deep operations at all times. He evaluates time in each belt-time for the enemy to react and time for him to counteract.

In both defense and offense, the commander and staff must look at many areas in detail, including movement considerations, closure rates, lengths of columns, depths of formations, and ranges and capabilities of weapons systems. Experience, unit historical data, SOPs, and doctrinal and training literature provide much of the necessary information.

Figures 4-8 through 4-14 provide fundamental war game guidelines.

Unit	*Action*	*Capability*	*Status*
Bn TF	Attack	Defeat a company	Can no longer continue the attack for 4 to 12 hours
Bn TF	Meeting engagement	Fixes a battalion	Can no longer continue the attack for 12 to 24 hours
Bn TF	Flank counterattack	Defeats a battalion	Able to continue reduced capability
Bn TF	Flank counterattack	Fixes a regiment	Can assume other missions on completion of mission, rearming and refueling
Bn TF	Defend	Defeats a regiment	Fully committed during attack
Bn TF	Delay	Defeats a regiment	High risk
Bn TF	Delay	Defeats a battalion	Low risk
Bn TF	Delay	Delays a regiment	Low risk
Bn TF	Penetration	Penetrates a battalion (note 1)	Can no longer continue the attack for 12 to 24 hours
Arty bn	Suppression	Suppresses a maneuver company	Is fully committed during period of suppression; is then available to continue the battle
	Counterbattery	Suppresses an artillery battalion	
MLRS plt	Suppression	Neutralize an artillery battalion	Not immediately available; must move to hide position and rearm
Atk hel bn	Attack	Defeats an enemy tank battalion in 1 hour employing mass tech	(note 2)
A-10		Kills 2.2 tanks per sortie	(note 3)

NOTES: 1. The army assumes that a task force can achieve superiority at one point against a &fender by using the suppressive tires of two companies or teams and penetrating with one company or team. Additional forces will have to exploit to defeat the &fender, or the penetration will fail.

2. Daytime only except for AH-64. Targets must be moving or in the open, not in prepared positions. This figure is based on average expected conditions of engagement and exposure time to fire required number of tube-launched, optically tracked, wire-guided missiles (TOWs) with a 75-percent probability of kill (PK) and a conservative 12:1 loss ratio. Second employment of the battalion (with an attrition rate of 12:1 and average operational readiness rates) can take place no sooner than 2-1/2 hours after the first employment. With fewer aircraft, more TOW shots are required to defeat another tank battalion, and a 10:1 loss ratio is expected Employment of the battalion against a third tank battalion would essentially render the. battalion combat ineffective.

3. Figure based on average sortie conditions. Given moving targets, SEAD, and employing a JAAT within the main defense belt, the results could approach five kills per aircraft.

Figure 4-8. War game guidelines.

		Type of Force	
		Foot infantry	*Armored or mechanized*
Type of Terrain	*Nonrestrictive*	4.0 kmph (day) 3.2 kmph (night)	24 kmph (day) 24 kmph (night with lights/passive)
	Restrictive	2.4 kmph (day) 1.6 kmph (night)	16 kmph (day) 8 kmph (night, blacked out)
	Severely restrictive	1.0 kmph (day) .1 to .5 kmph (night)	1.0 kmph (day) .1 to .5 kmph (night)

Figure 4-9. Unopposed rates of movement.

Attacker to defender ratio (note 4)	*Nonrestrictive terrain*		*Restrictive terrain*		*Severely restrictive terrain*	
	Armd/mech	*Inf*	*Armd/mech*	*Inf*	*Armd/mech*	*Inf*
Intense resistance 1:1	0.6	0.5	0.5	0.3	0.15	0.1
Very heavy 2:1	0.9	0.6	0.6	0.4	0.3	0.2
Heavy 3:1	1.2	0.7	0.75	0.5	0.5	0.2
Medium 4:1	1.4	0.8	1.0	0.6	0.5	0.5
Light 5:1	1.5	0.9	1.1	0.7	0.6	0.5
Negligible 6+:1 (note 5)	1.7+	1.0+	1.3+	0.8+	0.6+	0.6+

NOTES: 1. Units *cannot* sustain rates for 24 hours. Rates reduced by one-half at night. The relative combat power ratio must he computed for the unit under consideration.

2. Prepared defense is baaed on defender in prepared positions (24 hours or more). (Hasty defense is based on from 2 to 12 hours preparation time.)

3. These ratios are to determine the degree of resistance. There is no direct relationship between advance rates and force ratios. However, *sustained advances* probably are not possible without a 3:1 ratio. Advance is possible against superior forces but cannot be sustained.

Figure 4-10. Brigade and below opposed rates of advance (in kmph) in a prepared defense.

Attacker to defender ratio (note 4)	*Nonrestrictive terrain*		*Restrictive terrain*		*Severely restrictive terrain*	
	Armd/mech	*Inf*	*Armd/mech*	*Inf*	*Armd/mech*	*Inf*
Intense resistance						
1:1	1.0	0.8	0.8	0.5	0.4	0.2
Very heavy						
2:1(-)	1.5	1.0	1.0	0.7	0.6	0.3
Heavy						
3:1	2.0	1.2	1.3	0.9	0.8	0.5
Medium						
4:1	2.4	1.4	1.75	1.1	0.9	0.8
Light						
5:1	2.6	1.6	2.0	1.2	1.0	0.9
Negligible						
6+:1	3.0+	1.7+	2.3+	1.3+	1.1+	1.0+
(note 5)						

NOTES: 1. Units cannot sustain rates for 24 hours. Rates reduced by one-half at night. The relative combat power ratio must be computed for the unit under consideration.

2. When there is surprise, multiply figures by following surprise factors:
   - *Complete surprise x 5* (Germans at the Ardennes, 1944; Arabs, 1973).
   - *Substantial surprise x 3* (German invasion of Russia, 1941; Israeli invasion of Sinai, 1967).
   - *Minor surprise x 1.3* (Allied Normandy landing, 1944; Pakistani attack on India, 1971).

The effects of surprise last for three days and are reduced by one-third on day two and by two-thirds on day three.

3. These ratios are to determine the degree of resistance. There is no direct relationship between advance rates ad force ratios. However, *sustained advances* probably are not possible without a 3:1 ratio. Advance is possible against superior forces but cannot be sustained.

Figure 4-11. Brigade and below opposed rates of advance (in kmph) in a hasty defense.

Attacker to defender ratio (note 4)	*Nonrestrictive terrain*		*Restrictive terrain*		*Severely restrictive terrain*	
	Armd/mech	*Inf*	*Armd/mech*	*Inf*	*Armd/mech*	*Inf*
Intense resistance 1:1	2.0	2.0	1.0	1.0	0.6	0.6
Very heavy 2:1(-)	5-6	4.0	2-3	2.0	1.5-1.8	1.2
Heavy 3:1	7-8	5.0	3-4	2.5	2.1-2.4	1.5
Medium 4:1	8-10	6.0	4-5	3.0	2.4-3.0	1.8
Light 5:1	16-20	10.0	8-10	5.0	4.8-6.0	3.0
Negligible 6+:1	24-30	12.0	12-15	6.0	7.2-9.0	3.6

(note 5)

NOTES:

1. Units *cannot* sustain rates for 24 hours. Rates reduced by one-half at night. The relative combat power ratio must be computed for the unit under consideration. Use the relative combat power from paragraph 2a(4) in the operation estimate.
2. Prepared defense is based on &fender in prepared positions (24 hours or more). (Hasty defense is based on 2 to 12 hours preparation time.)
3. The ratios are used to determine the degree of resistance. There is no direct relationship between advance rates and force ratios. However, sustained advances probably are not possible without a 3:1 ratio. Advance is possible against superior forces but cannot be sustained.

Figure 4-12. Division opposed rates of advance (in kilometers per day) in a prepared defense.

Attacker to defender ratio (note 4)	*Nonrestrictive terrain*		*Restrictive terrain*		*Severely restrictive terrain*	
	Armd/mech	*Inf*	*Armd/mech*	*Inf*	*Armd/mech*	*Inf*
Intense resistance						
1:1	4.0	4.0	3.0	2.0	1.2	1.2
Very heavy						
2:1[-]	10-12	8.0	5-6	4.0	3.0-3.6	2.4
Heavy						
3:1		13-16	10.0	8-0	5.0	3 . 9 - 4.8 3.0
Medium						
4:1		16-20	12.0	10.0	6.0	4 . 8 - 6.0 3.6
Light						
5:1		30-40	18.0	20.0	9.0	9 . 0 - 12.0 5.4
Negligible						
6+:1	48-60	24.0	30-0	12.0	14.4-18.0	7.2
(note 5)						

NOTES:

1. Units cannot sustain rates for 24 hours. Rates reduced by one-half at night. The relative combat power ratio must be computed for the unit under consideration. Use the relative combat power from paragraph 2a(4) in the operation estimate.

2. When there is surprise, multiply these figures by the following surprise factors:
   - Complete surprise x 5 (Germans at the Ardennes, 1944; Arabs, 1973).
   - Substantial surprise x 3 (German invasion of Russia, 1941; Israeli invasion of Sinai, 1967).
   - Minor surprise x 1.3 (Allied Normandy landing, 1944; Pakistani attack on India, 1971).

The effects of surprise last for three days and are reduced by one-third on day two and by two-thirds on day three.

3. The ratios are used to determine the degree of resistance. There is no direct relationship between advance rates and force ratios. However, sustained advances probably are not possible without a 3:1 ratio. Advance is possible against superior forces but cannot be sustained.

Figure 4-13. Division opposed rates of advance (in kilometers per day) in a hasty defense.

Type (note 2)	*Endurance*	*Combat radius*
AH-1S	2.0 hrs	280 km
AH-64A (Apache)	2.5 hrs	325 km
UH-1 (note 3)	2.2 hrs	200 km
UK-60 (Blackhawk) (note 3)	2.2 hrs	280 km
UH-47D (note 4)	2.0 hrs	100 km (note 4)

NOTES: 1. Use this table for general planning only.
2. Attack aircraft configured for optimum weapons/fuel mix.
3. Utility/cargo aircraft endurance reflects maximum fuel loads, minus reserve, which may be decreased to enhance load carrying capability.
4. Computed for a 15,000-pound internal load at 4,000 feet/95 degrees Fahrenheit.

Figure 4-14. Army Aircraft endurance rates.

4-3. ACTION-REACTION-COUNTERACTION DRILLS

The staff conducts action-reaction-counteraction drills until forces successfully complete the critical event or until the commander determine that he must use some other means to conduct the operation. The staff notes potential branches ad necessary sequels which develop from the drills. Normally, corps and higher levels develop branches and sequels, but, during long-range planning, division and lower levels may plan them also. At this time, the staff also confirms the locations of both named areas of interest (NAIs) and target areas of interest (TAIs). The commander also determines the means, control measures, and conditions which he will use to initiate the attack.

a. Action. The staff war games a given event by identifying subevents necessary for completing the event. Subevents are actions that the major subordinate headquarters perform. (The staff lists the major subordinate headquarters in the action column of the war game worksheet.) War gaming allows the staff to visualize how major subordinate headquarters will use their assets. It also-

- Considers all elements of the battlefield framework.
- Analyzes requirements that support the headquarters' action leading up to, during, and after the action.
- Identities all assets the commander will need during the entire action.
- Lists assets k will use in the action and counteraction columns of the worksheet.
- Lists the totals in the assets column (not considering any assets lower than two command levels down).

War gaming is a proactive analysis; therefore, all actions are those which the headquarters analyzing the event initiates. In defensive operations, actions normally anticipate expected enemy action. Therefore, after

identifying actions and listing assets, the war gamer tries to determine what the enemy will do. This leads to the second part of the drill--reaction.

b. Reaction. The staff analyzes the enemy's reactions within the context of the action and the units involved. The staff considers all possible reaction forces, including templated forces outside the area of operations, which could conduct a counterattack mission. The staff then asks, "If the enemy does this, what can we do?" This leads to the final step of the drill-counteraction.

c. Counteraction. Counteractions occur when headquarters respond to reactions. The staff-

- Examines counteractions within the battlefield framework.
- Determines the assets the commander will need.
- Lists required counteractions and assets in the appropriate worksheet columns.

4-4. COMBAT SUPPORT ASSETS ALLOCATION AND COMBAT MULTIPLIERS

During the action-reaction-counteraction drill, the commander identities which assets each action or counteraction needs. The special staff provides details on available assets and assists the G3/S3 in allocating CS assets (engineer, AD, and theater air support), keeping in mind the commander's intent, planning guidance, and the main effort for the course of action under consideration. If demands exceed capabilities, he establishes priority use.

After receiving the commander's guidance, the unit staff considers all combat multipliers that might enhance the unit's relative combat strength. Choosing those to which to give extensive consideration depends on the commander's guidance, intent, and the situation. (Combat multipliers may include, but are not limited to, CSS, deception, and EW support (jamming, defensive fire, and interception), PSYOP, obstacles, military police, and smoke.)

4-5. WAR GAME RESULTS

War gaming a COA should result in-

- Refinements or modifications to the COA. War gaming provides a method for testing and improving a developed COA. The staff modifies the COA based on information from the war game.
- Identification of subordinate unit tasks and task-organization requirements. The commander should specify tasks to assure mission accomplishment.
- Identification of synchronization requirements. The commander may need to change or adjust control measures, including unit boundaries, objectives, engagement areas, phase lines, and fire support coordinating measures (FSCMs). Time is critical for battle synchronization, agility, and coordination. Throughout the war game, the commander identifies specific requirements the force must perform by certain times or by decisive times when, if a major event does not occur,. the mission will be jeopardized. The commander should state decisive time in relationship to enemy and friendly actions; they may be different for each COA.
- Estimate of battle duration for each critical event as well as for the entire battle. The commander calculates battle duration by considering distance, rate of movement, terrain, weather, and other factors.

- Estimate of kilometer loss or gain during an actual battle.

- Projection of the percentage of total enemy forces defeated in each critical event and overall.

- Identification of required use of other combat capabilities.

- Identification of decision points (DPs), NAIs, TAIs, decisive terrain, and additional critical events. These events may require more emphasis by the entire staff and may influence the-

  - Location and commitment of the reserve.
  - Location of the commander and his HQ.
  - Timing of force concentration.
  - Use of attack helicopters.
  - Launching of a counterattack.
  - Nomination of potential nuclear targets (corps only).
  - Synchronization of the sustainment effort.

Identification of nuclear, biological, or chemical events. The war gamer should be alert for likely times and areas where nuclear or chemical weapons may be used (friendly or enemy). He should continuously assess the vulnerability of friendly dispositions to nuclear or chemical strikes, seek to achieve a balance between mass and dispersion on the battlefield, and then define mass in terms of risk. When assessing risk to friendly forces, the planner should view the target the force presents through the eyes of an enemy target analyst. He must consider ways to reduce vulnerability and determine the mission-oriented protective posture (MOPP) level needed for protection consistent with mission accomplishment. He must also consider initial deployment of NBC decontamination units and establish decision points for friendly use ofnuclear weapons (corps only).

- Identification of additional requirements for combat support. The war gamer determines which available assets to use to support the scheme of maneuver consistent with the CSS situation. Once he has completed his analysis, k reassesses the need for CS assets and establishes a priority list for the use of each asset. To maintain some flexibility in the plan, he may decide to hold some of these assets back for unforeseen tasks or opportunities. He expresses CS assets in priorities of support or identifies the size unit (companies, battalions, batteries, platoons, sorties) required. He also considers the time element; e.g., durations of fires, breach& bridging, etc.

- Identification of requirements for deception and surprise. The war gamer can use dummy positions, deceptive gaps in a defense, reverse slopes, enticements, feints, demonstration, and ruses. He must also be alert for chances to do the unexpected.

- Identification of C^2 requirements. The purpose of C^2 is to implement the commander's will in pursuit of the unit's objective while minimizing its exposure to fratricide. The system must be able to collect, analyze, and present information; communicate orders; coordinate support; and provide direction to the force in spite of enemy interference, destruction of command posts, or replacement of commanders. The

commanders should have the freedom to operate, delegate authority, and lead from any critical point of the operation.

- Identification of P^2 requirements.

- Identification of branches and sequels. As the war gamer identifies possible enemy reactions for each of his own actions, k can also identify branches (alternatives), which he can later develop and war game for inclusion in the OPORD or OPLAN.

- Identification of decision points.

- Identification of CCIR

- Identification of strengths and weaknesses.

- Identification of high-payoff targets.

- Determination of attackguidance.

4-6. WAR GAME RESPONSIBILITIES

The CofS/XO is responsible for coordinating staff actions. He should lead the war-gaming effort. While the G3/S3 is war gaming his area of responsibility, other staff members analyze COAs in their own areas. The following paragraphs detail each staff member's responsibilities.

a. The G2/S2-

- Role plays the enemy commander during war gaming.

- Ensures that the staff fully addresses friendly responses for each enemy COA by trying to win the war game for the enemy.

- Develops the enemy's DST and/or synchronization matrix for each friendly COA.

- Identifies information requirements to support DPs.

- Identifies NAIs that will support TAIs and DPs.

- Refines situation templates.

- Participates in the targeting conference.

- Assists the G3/S3.

- Identifies reactions, projects enemy losses, and verifies NAIs, TAIs, and HVTs as determined by IPB.

b. The G4/S4. Army operations success requires force sustainment. Sustainment must be responsive, continuous, and integrated into the course of action. While improvisation can contribute to responsiveness, only accurate anticipation can ensure the continuous sustainment of the force. Anticipation requires prediction of requirements to fulfill the sustainment functions of manning, arming, fueling, fixing and moving the force. (Protecting the force is inherent in each function.)

Force sustainment consists of supplies and services and their distribution. If distribution assets are unavailable, then the supply or service, even if available, will not be where it is needed. Sustainment is a function of consumption and the distance (transposed into transportation assets and time) it takes to replenish supplies and services.

The G4/S4, like the G3/S3, must visualize how the battle will unfold in order to assess its sustainment feasibility and determine the COA's synchronization requirements. The G4/S4 can then anticipate sustainment function requirements. He must also determine critical requirements for each sustainment function and be able to answer the following questions:

- What is the support unit's location when the supplying unit must begin moving the required sustainment function forward?
- What is the requirement for the operation?
- What is the shortfall?
- What is the solution model?
- Where are the support units?
- What are the support units' capabilities?
- Where is the enemy?
- What are the ambient light conditions?
- What is the source of supply or service, and where is it located?
- What transportation assets are available to bring the supply or service to the consuming unit (or replenishing the supporting unit)?
- What are the trafficability conditions?
- What protection measures do transportation assets require?
- How much time is necessary to complete the sustainment function?
- What will the supported units and their immediate sustaining units need to prepare to execute a sequel to the operation?

To answer these questions, the G4/S4 must-

- Analyze each course of action to identify potential problems and deficiencies.

- Perform mathematical calculations to assess the status of supply, maintenance attrition rates, tonnage-lift capacity, consumption rates, time-distance-density factors, and so on, to obtain information for full analysis.

- Consider organizational strength data to accurately estimate many of the requirements for supplies and services, including the sufficiency of the area (that is, is the area of operations adequate for CSS operations); all factors affecting transportation for each course of action; the demands of each tactical course of action for supply, maintenance, services; and so forth.

- Compare the data from this analysis to existing stockages, anticipated receipts, and capacities.

- Identify potential shortfalls.

- Determine actions that could eliminate such shortfalls or reduce their effect if the commander selects that course of action.

The G4's/S4's analysis also includes requirements for CSS and estimated attrition. The flow of the battle indicates general sustainment priorities. Some of the requirements for CSS which the G4/S4 must consider are locations for pre-positioning additional obstacle materials, varieties and quantities of ammunition required supply rates (RSRs) generated by the G3/S3, transportation demands, and requirements for reconstitution. Analysis of estimated attrition helps project battle losses and weighs them against risk criteria. This projection is primarily for critical weapons systems, such as attack helicopters. From this, the G4/S4 can prevent undue damage to the command.

c. The G1/S1 analyzes COAs to see if one would cause greater casualties than others. The results project potential personnel battle losses. The G1/S1 formulates risk analysis through COA development. He makes a final risk assessment after considering all other factors. The G1/S1 also looks at replacement operations and balances the personnel accounting report with the strength report. In addition, the G1/S1 considers the quality of life and family issues that affect every soldier's readiness and willingness to fight. Risk analysis results in a subjective judgment at best. The G1/S1 articulates risk to the commander in terms of low, medium, high, or extremely high. Or, in comparison to other COAs, as less, more, or equally at risk. He identifies the aspects of the course of action that are risky and what, if anything, he can do to modify or reduce risk. Sometimes, however, audacity will increase security rather than increase risk. The war gamer should look for such opportunities.

d. Special staff officers assist the coordinating staff through analysis of the courses of action in their areas of expertise, indicating how they could best support the mission and its requirements.

4-7. RISK ASSESSMENT AND RISK MANAGEMENT

Risk assessment requires a problem-solving method which identifies areas presenting the highest risk to force protection. It is a detailed analysis of each COA's C^2 and P^2 measures identified during step eight of the war game. Risk management identities actions which could help commanders eliminate, reduce, or minimize risk while maximizing force protection. Planners war game a COA and then perform risk assessment before they proceed to the next one. From this analysis, the staff considers the conditions most likely to cause mission failure or fratricide.

a. Steps of the risk assessment process.

Step 1. Identify hazards and major events.

The staff reviews and expands, as appropriate, the list of hazards and major events during step four of the war game, and, if necessary, displays them in a decision tree. This procedure helps detect specific hazards associated with all specified and implied tasks so the staff can determine the best force protection against them.

Step 2. Assess hazards.

This step requires a detailed analysis of the potential magnitude of risk caused by hazard and an estimate of the potential for fratricide Risk-assessment matrixes (fig 5-15) provide a simple analysis method of dividing an operation into its major operational events to discover areas where the staff might eliminate or reduce risk. Each unit should develop its own risk-assessment matrix with applicable major operational events.

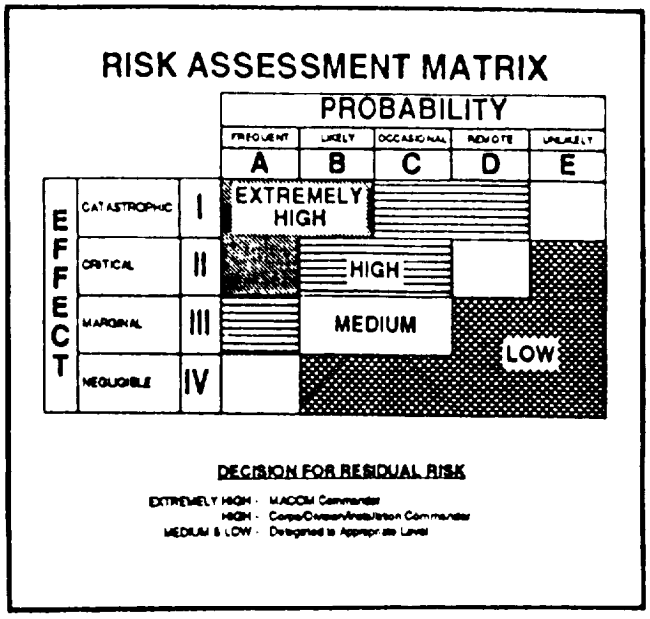

Figure 5-15. Risk assessment matrix.

For example, during the Iranian hostage rescue attempt, there was a need for a remote desert landing rite to reconfigure for the raid and to refuel. This site, know-n as Desert One, was evaluated on the probability that discovery was considered to be occasional (top of matrix under probability, occasional, C) and the effect of discovery was considered critical (side of matrix under effect, critical, II). Read the two entries as you would in reading a road map. The two intersect at the area shaded as HIGH risk. Under "Decision for Residual Risk," levels of decisionmaking responsibility are listed. In this case, the high-risk decision is made by the corps, division or installation commander. To reduce the risk in this case, soldiers may secure Desert One and detain anyone who might stumble on the operation while using the road that runs through the site. This action my drop the probability of discovery to remote (D). If the effect of discovery remains critical, the events will intersect in the matrix as MEDIUM.

There are at least two kinds of risk. Losing men and equipment is one, and choosing an unsuccessful course of action (or, even if the course of action is successful, choosing one that fails to achieve the desired effect) is another. All courses of action contain some risk. Risk analysis examines and evaluates each for notable risks or undetected flaws, However, trying to totally eliminate risk is unreasonable and overly cautions. Fighting outnumbered (and winning) demands the taking of calculated risks. Using tactical nuclear weapons also adds complexity to risk assessment.

This matrix should not stifle initiative or taking bold risks in combat For example, during the seizure of the Remagen Bridge, the benefit of seizing an intact bridge of the Rhine outweighed the extremely high risk of sending soldiers across a bridge rigged for demolition. This decision had to be made on the spot and could not wait for a decision from a higher commander.

Units can use the risk-assessment matrix alone or with other analysis techniques. The matrix is nearly always more effective than intuitive methods in identifying the extent of risk. When using a risk-assessment matrix, be risk assessor must-

- Review each situation to ensure he has evaluated all significant areas of concern, even if the matrix does not include them.
- Use the matrix to analyze risk and target areas of concern for risk-reducing techniques.
- Review individual areas of concern before recommending options.

If a COA has several different stages that require risk assessment, it is rated according to the stage which has the highest degree of risk.

Step 3. Make risk decision.

Reduce risk to that which is mission essential.

Step 4. Implement controls.

The unit must implement P^2 controls and integrate them into plans, OPORDs, SOPs, and rehearsals. Knowledge of P^2 controls, from the commander to the individual soldier, is essential for successfully implementing and executing P^2 controls

Step 5. Supervise. The commander must enforce P^2 controls. Leaders monitor, follow-up, verify, and correct or modify, as appropriate, P^2 controls that the commander imposes on his subordinates. When monitoring operational activities, leaders must-

- Avoid administrative intrusions on their subordinates' time.
- Go where the risks spend time at the heart of the action.
- Analyze and think through issues, not just watch.
- Work with key personnel to improve operational procedures after the action. (Leaders must not hesitate to address imminent danger issues on the spot.)

- Fix systemic problems which are hindering combat effectiveness.
- Capture and disseminate lessons learned from mishaps and near misses for future use.

Leaders must also balance the cost of risks with the value of the desired outcome. They must consider and manage risks in making such decisions, using the following three general rules:

1. Never accept an unnecessary risk. The leader who has the authority to accept or reject a risk is responsible for protecting his soldiers from unnecessary risks. If he can eliminate or reduce a risk and still accomplish the mission, the risk is unnecessary.

2. Make risk decisions at the appropriate level. The leader who must answer for an incident is the person who should make the decision to accept or reject the risk. In most cases, he will be a senior off&r, but small-unit commanders and first-line leaders might also have to make risk decisions during combat. Therefore, they should learn to make risk decisions during training.

3. Ensure that the benefits of a prudent risk outweigh the possible cost of the risk. Leaders must understand the possible risk and have a clear picture of the benefits to be gained from taking that risk.

b. Factors to consider in risk management.

Level of activity	Hazardous materials used
Inherent dangers of equipment used	Environmental concerns
Operational conditions	Complexity of movement
Personnel/organization proficiency	Supervision
Weather	Complexity of mission
Condition of personnel	Level of planning
Adequacy of site	Availability of protective equipment
Accident frequency	Adequacy of directions given

4-8. COMPARISON OF WAR GAME RESULTS

After analyzing each COA, the staff compares the feasible ones to identify the one that has the highest probability of success against the enemy COA of greatest concern to the commander. This COA with the highest probability of success will have branches that will aid success against other possible enemy courses of action. The actual comparison may follow any technique that allows the staff to reach a recommendation. A decision matrix is one of these techniques. Each staff officer may use his own matrix for comparison in his own field of interest. For example, the CofS/XO may use a decision matrix (fig 4-16), which is a graphic portrayal of subjective indicators and is not meant to be absolute, all-inclusive, or objective in nature.

		Course of Action [1]		
Criteria [2]	Wt [3]	1	2	3
Maneuver	3	2 [4] (6) [5]	3 (9)	1 (3)
Simplicity	3	3 (9)	1 3)	2 (6)
Fires	4	2 (8)	1 (4)	3 (12)
Intel	1	3 (3)	1 (1)	2 (2)
ADA	1	1 (1)	3 (3)	2 (2)
Mobility-survivability	1	3 (3)	2 (2)	1 (1)
CSS	1	2 (2)	1 (1)	3 (3)
C²	1	1 (1)	2 (2)	3 (3)
P²	1	1 (1)	2 (2)	3 (3)
Total [6] Weighted Total [7]		18 (34)	16 (27)	20 (35)

NOTES: 1. Courses of action are those that are selected for war gaming.

l Criteria are any factors that pertain to the mission (options include specific elements of commander's guidance, BOS, Army operations tenets, OCOKA, principles of war, or any other significant factor, They may be assigned by either the commander or staff If criteria are qualitatively the same for each course of action, they may not need to be displayed.

3. If the commander wants to emphasize one as more important than another, he assigns weights to each criterion baaed on relative importance.

4. The principal staff officers assign numerical values for each criterion after war gaming the COAs. These values reflect the relative advantages or disadvantages of each criterion of each COA. In the example above, COA 3 is clearly the but.

5. The weights are multiplied by the initially assigned score in each column.

6. The numbers are totaled to provide a subjective evaluation of the best course of action without weighing one criterion over another.

7. The scores are then totaled to provide a "best" (highest number value) course of action based on weights the commander assigns.

8. When using weighted value (that is, relative rankings from worst to best), the higher value assigned must always indicate the best option..

9. Although the highest value generally denotes the optimum solution, this is not always true. The matrix must be further examined for sensitivity. Although COA 3 is the "best" COA in this case, it may not be supportable from a CSS standpoint. That being the case, the decision maker must either determine if he can acquire additional support or alter or delete the COA.

Figure 4-16. Sample decision matrix.

Figure 4-17 shows an alternative decision matrix example which identifies each COA's advantages and disadvantages.

Course of Action	Advantages	Disadvantages
COA 1	Main attack avoids major terrain obstacles. Adequate maneuver room for main attack and reserve.	Main attack faces stronger resistance at beginning.
COA 2	Main attack gains good observation early. Supporting attack provides flank protection to main attack.	Initially, reserve may have to be employed in zone of supporting attack. Needs detailed and rehearsed P^2 controls.
DISCUSSION		

Figure 4-17. Sample decision matrix: subjective analysis.

Even after the commanders chooses what he considers the best course of action, war gaming does not end. His decision triggers the preparation and issuance of the order. War gaming then shifts gears to consider specific branch of the current plan or contingency planning of that decision or future (sequel) operations. War gaming the decision helps the commander and staff anticipate enemy actions. They can then put plans into effect that will cause the enemy to react to their plan rather than they reacting to the enemy's, The commander must also decide the priority of the staff's work as they continue-

- Monitoring the execution of the current operations.
- Synchronizing the next (base) plan.
- Course of action analysis of branch plan to the next base plan.
- Course of action development for the sequel to the next base plan.

CHAPTER 5

DECISION AND EXECUTION

5-1. INTRODUCTION

After analyzing and comparing COAs, the staff outlines each, highlighting its advantages and disadvantages. The staff then briefs the commander, and he selects the COA he believes to be the most advantageous. He then specifies command and support relationship considerations in the OPORD or OPLAN.

5-2. THE DECISION

a. Briefing the Commander. The staff's briefing must not prejudice the commander. It must contain all the branches and sequels (depending on the level of command) the staff identified during the war game. The staff must discuss any unresolved issues or dissenting opinions with the commander.

The commander and staff must make decisions based on only essential information, such as mission, situation, deductions about the situation, analysis, and sound doctrine. The importance of doctrinally sound decisions cannot be overemphasize. By basing solutions on commonly understood doctrine, the commander helps subordinates rapidly and consistently accomplish the mission.

Each staff member must be able to answer any of the commander's questions about his portion of the COA. He should also develop appropiate briefing charts for his area. The staff members do not brief the war game used to determine the COAs they present unless the commander requests it, but they can use the results of the war game to answer questions or to provide details and rationale for the arrangement of forces of a particular critical event. The CofS/XO then announces the staff's recommended COA.

b. Selecting the COA. The recommended COA should be obvious to the commander if the staff has done its job well. The commander may agree with the recommendation, modify it, or select another. If be selects one different from the one the staff recommends, his decision should not create much more staff work; the staff should have determined each COA's requirements during the war game. The commander may decide on one COA, with modifications, or he might present one the staff has not previously considered. Of course, there is risk in doing this, since the staff will not have analyzed it. The staff can minimize these possibilities by maintaining contact with the commander, the CofS/XO, or the G3/S3 throughout the DDMP.

The commander reaches his decision based on-

- His experience.
- His trust and confidence in his command.
- His estimate of the situation.
- The COA's inherent flexibility.
- The COAs compatibility with his deception objective.

Once he makes his selection, he refines the chosen COA into a clear, concise statement of his intent, the general scheme of maneuver, and what supporting fires the operation will need. The decision should include the elements of what, when, how, why, and possibly, who. If the who has not been previously identified, the the commander will do so at this time.

The commander next decides what risk he is willing to accept to accomplish the mission. If there is time, he should discuss the acceptable level with adjacent and senior commanders; however, he *must* obtain higher level approval to accept any risk which might imperil the higher commander's intent.

Finally, the commander announces is decision and his concept of operation. He then expands the wording of the selected COA into a concept of operation statement and outlines his concept to the staff. The concept is an amplification of the commander's intent. It includes actions within the elements of organizing the battlefield, a clear designation of the main effort, and how the commander intends to defeat the enemy.

NOTE: See chapter 1 for further details on commander's intent; see also FM 100-5, chapter 6.

After receiving the decision, the staff prepares the order or plan to implement the selected COA. While executing the plan the commander and staff continually assess the situation to adjust the plan, as required in response to situational changes.

5-3. SPECIFYING DOCTRINAL COMMAND AND SUPPORT RELATIONSHIP CONSIDERATIONS

Formal task organization begins after COA analysis (war gaming) when the commander assigns missions to his subordinate commanders. Neither the commander nor staff can disregard-

- The existing task organization already established in an ongoing operation.
- Specific unit strengths or weaknesses.
- The consideration of the time necessary to realign the organization in preparation for a subsequent mission once a new mission is received or deduced; however, actual transfer from generic to specific units is performed after COA analysis.

The purpose of task organization is to maximize subordinate maneuver commanders' abilities to synchronize units consistent with the concept of operation. Task organization allows commanders at the lowest level to--

- Decide what portions of the enemy force to attack.
- Detect designated enemy targets and report their positions to the appropriate C^2 headquarters promptly.
- Deliver friendly combat power against designated enemy targets.
- Assess effects of friendly combat power.

Task organization involves available assets the commander decides to distribute to subordinate commanders and their command and support relationships or assets he decides to keep under his control. Task organization allows the commander flexibility within the concept of operation and helps him tailor forces to-

- Adapt to conditions imposed by METT-T at every level.

Further his commander's intent and concept, support the scheme of maneuver, and follow his commander's guidance.

- Provide weight to the main effort by providing additional combat or CS units; establishing priorities of fire, protection, or effort; or using combat multipliers such as lethal and nonlethal fires.

- Provide mutual support and flexibility to meet unforeseen events and support future operations.

- Allocate resources with minimum restrictions on their employment.

Successful task organization rests on understanding-

- The mission.

- The higher commanders intent and concept of operation.

- Army operations doctrinal tenets.

- The battlefield framework.

- The respective roles and interrelations of BOSs.

- Tactics.

- The status of available forces

The commander uses war gaming to identify what combat power he needs, and, depending on the situation and concept of operation, where, when, and how frequently he will need it. He assigns tasks to subordinate headquarters and *reallocates combat power as necessary.* He then defines command and support relationships for subordinate units and decides the priorities of support (organization for combat) which supporting units require.

Control over supporting units is provisional. The higher-echelon commander determines specific details and clearly defines command and support relationships. Clearly stated and well-defined command relationships support unity of command principles and help govern task organization, allowing higher-echelon commanders to retain flexibility to exploit opportunities. Meanwhile, subordinate commanders use this arrangement of combat power to support the commander's plan.

Commanders share command responsibility and authority when certain unit functions fall outside the normal organizational chain of command or when they must conform to certain policies and procedures. When dividing command responsibility and authority, the authorizing commander must formally and comprehensively define limits (typically done in the operation order).

a. Definitions of command relationships (fig 5-1).

(1) *Organic*. An organic element is assigned to and forms an essential part of a military organization; it is an element normally shown in the unit's TOE.

(2) *Assigned.* Assigned units or personnel are placed in an organization where such placement is relatively permanent and/or where such organization controls, administers, and provides logistic support to units or personnel for the primary function, or greater portion of the functions, of the unit or personnel.

(3) Attached. Attached units or personnel are temporarily placed in an organization. Subject to limitations imposed by the attachment order, the commander of the formation, unit, or organization receiving the attachmat will exercise the same degree of command and control as he does over units and persons organic to his command; however, the parent formation, unit, or organization normally retains responsibility for transfer and promotion of personnel.

(4) Operational control (OPCON). Within NATO, OPCON is the authority delegated to a commander to-

- Direct forces assigned so he may accomplish specific missions or tasks usually limited by function, time, or location.
- Deploy units concerned.
- Retain or assign tactical control of those units.

Operational control does not include authority to assign separate employment of components of the units concerned. Neither does it, of itself, include service support control. The Department of Defense (DOD) defines OPCON as the transferable command authority which may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority) to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command and should be exercised throught be commanders of subordinate organizations. Normally, this authority is exercised through service components commanders. Operational control usually provides full authority to organize commanders and forces and to employ those forces as the commander in OPCON considers necessary to accomplish assigned missions. Operational control does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training.

(5) Combatant command (COCOM). Within DOD, COCOM is the authority commanders of unified and specified commands exercise over their assigned forces.

(6) Operational command (OPCOM). Within NATO, OPCOM is the authority granted to a commander to assign missions or tasks to subordinate commanders, to deploy units, to reassign forces, and to retain or delegate operational and/or tactical control as necessary. It does not of itself include responsibility for administration or logistics.

(7) Tactical command (TACOM). NATO defines TACOM as the authority delegated to a commander to assign tasks to forces under his command for the accomplishment of the mission assigned by a higher authority.

(8) *Tactical control (TACON).* NATO defines TACON as the detailed and, usually, local direction and control of movements or maneuvers necessary to accomplish missions or tasks assigned.

b. Definitions of support relationships (fig 5-1).

Support relationships define specific relationships and responsibilities between supporting and supported units. Command responsibilities, responsibilities for service support, and the authority to organize or reassign component elements of a supporting force remain with the higher headquarters or parent unit unless the authorizing commander specifies othwise.

(1) *Direct support (DS).* A unit in direct support of a specific unit or force gives priority of support to that unit or force. The supporting unit takes support requests directly from the supported unit or force and normally establishes liaison and cummmnications. The supporting unit also provides advice to the supported unit. A unit in direct support has no command relationship with the supported unit or force.

(2) *General support (GS).* A unit in general support provides support to the total force, not to any particular subdivision. Subdivisions cannot directly request support from a GS unit. Only supported force headquarters determines priorities and assigns missions or tasks to the GS unit. A GS unit has no command relationship with the supported unit or force.

(3) *General support-reinforcing (GSR).* A GSR unit's primary mission is to provide support to the total force. Its secondary mission is to provide reinforcing support to a like force. A GSR unit has no command relationships with the supported unit or force.

(4) *Reinforcing (R).* One unit can provide reinforcing support to a like unit. A reinforcing support unit has no command relationship with the supported unit.

c. Task organization fundamental considerations.

The commander approves or modifies the CofS's/XO's task organization recommendation based on certain intangibles, logical information, and allocation of assets.

(1) *Intangibles.* Intangibles come from the commander's personal estimate of his subordinate and supporting force's fighting abilities. To properly estimate those abilities, the commander must personally know-

- His subordinate commanders' competency, audacity, and leadership qualities.
- The force's true ability to apply combined arms doctrine.
- The force's overall morale and stress levels.
- The soldiers' courage and competency.
- The capabilities of the force's equipment.

(2) Logical information. Logical information comes from the estimate process. It-

- Facilitates the commander's intent and concept, supports the scheme of maneuver and deception, and follows the the commander's guidance.

RELATIONSHIPS		INHERENT RESPONSIBILITIES							
		Has command relationship with:	May be task organized by:	Receives logistic support from:	Is positioned by:	Provides liaison:	Establishes/ maintains communications with:	Has priorities established by:	Gaining unit can further impose command relationships of:
C O	Attached	Gaining Unit	Gaining Unit	Gaining Unit	Gaining Unit	As required by unit to which attached	Unit to which attached	Gaining unit	Attached OPCOM, OPCON, TACOM, TACON, GS, GSR, R,
M	OPCOM (NATO, USA, GE)	Gaining unit	Gaining unit	Parent unit	Gaining unit	As required by unit to which attached	Parent unit and unit to which OPCOM	Gaining unit	OPCOM, OPCON, TACOM, TACON, GS, GSR, R,
M A	OPCON	Gaining unit	Gaining unit (except when involving multinational forces in NATO--then parent unit)	Parent unit	Gaining unit	As required by unit to which attached	Parent unit and unit to which OPCOM	Gaining unit	OPCON, TACOM, TACON, GS, GSR, R,
N	TACOM (NATO, USA,GE)	Gaining unit	Parent unit	Parent unit	Gaining unit	As required by unit to which attached	Parent unit and unit having OPCOM	Gaining unit	TACOM, TACON, GS, GSR, R,
D	TACON	Gaining unit	Parent unit	Parent unit	Gaining unit (local maneuver)	As required by unit to which attached	Parent unit and unit having OPCOM	Gaining unit	TACON, GS, GSR, R,
S U	GS	Parent unit	Parent unit	Parent unit	Parent unit	As required by parent unit	Parent unit	Parent unit	NA
P P	GSR	Parent unit	Parent unit	Parent unit	Parent unit	As required by parent unit and to reinforced attached	Parent unit and reinforced unit	1 Parent unit 2 Reinforced unit	NA
O R	R	Parent unit	Parent unit	Parent unit	Reinforced unit	Rein-forced unit	Parent unit and reinforced unit	1 Reinforced unit 2 Parent unit	NA
T	DS	Parent unit	Parent unit	Parent unit	Parent unit	Parent unit	Parent unit and gaining unit	Gaining unit	NA

Figure 5-1. Command and support relationships and inherent responsibilities.

- Provides weight to the main effort by providing additional combat or CS units; establishing priorities of fite, protection, or effort; or using combat multipliers.

- Ensures unity of command and synchronization of effort through proper use of command and support relationship, offsets limitations, and maximizes the potential of all forces available. Personnel performing C^2 functions must understand the capabilities and limitations of assigned units or allocated priorities. They can then create effective combined arms teams to accomplish the mission while considering the potential adverse effect of breaking up cohesive teams before changing the task organization; providing mutual support and flexibility to meet unforeseen events and to support future operations; and allocating resources with minimum limitations on their employment.

- Exploits enemy vulnerabilities.

- Makes the best use of terrain and weather considerations.

(3) *Allocation of assets.* Allocating assets two levels down provides forces to subordinate commanders level down. This is always true for maneuver units. There may be exceptions for CS units. For example, at corps level, engineer or MP companies may be allocated to augment divisions. The commander allocates CSS units, regardless of size, as needed.

d. Formatting task organization

There are two methods for formatting task organization-the outline method (fig 5-2) and the matrix method (fig 5-3). Both have merit. Sequencing and alignment requirements are the same for both, and they are shown in subparagraph 5-3*e*. To minimize confusion caused by inconsistency, the CofS/XO selects the method the staff will use throughout a given OPLAN or OPORD.

(1) *The outline method.* The outline method of task organization is simply a detailed listing of the allocation of available resources to ground maneuver units in support of the commander's concept (subparagraph 3a of the OPLAN or OPORD). Long or complex task organizations should be in an annex. It is usually used by division and higher command echelons and commanders of joint or combined operations. The outline method has six steps:

Step 1. List major subordinate control headquarters in the correct sequence (fig 5-2 and subparagraph 5-3*e*). If applicable, list task organization by the phases of the operation.

Step 2. Indent subordinate units two spaces under the C^2 headquarters. Qualify relationships other than attached; e.g., OPCON, GS, DS, GSR, R, and so forth. If possible, show all command and support relationships in the task organization. Place DS units below the maneuver units they support. A command or support relationship is not a mission assignment; mission assignments go in paragraph 3b or 3c under organization for combat.

Step 3. For clarity, list subsequent command or support relationships in the task organization following the affected unit. For example, "3-80 Mech: on order, OPCON to 2d Bde" is written, "3-80 Mech: 00, OPCON 2d Bde."

Step 4. When the effective attachment time of a nonorganic unit to another unit differs from the effective time of the OPLAN or OPORD, enclose the effective attachment time after the attached unit. You may do this by phase, as in, "3-80 Mech: OPCON 2d Bde, Phase II." List this information in either the task organization (preferred) or in paragraph lc (Attachments and detachments), but *not in both places.*

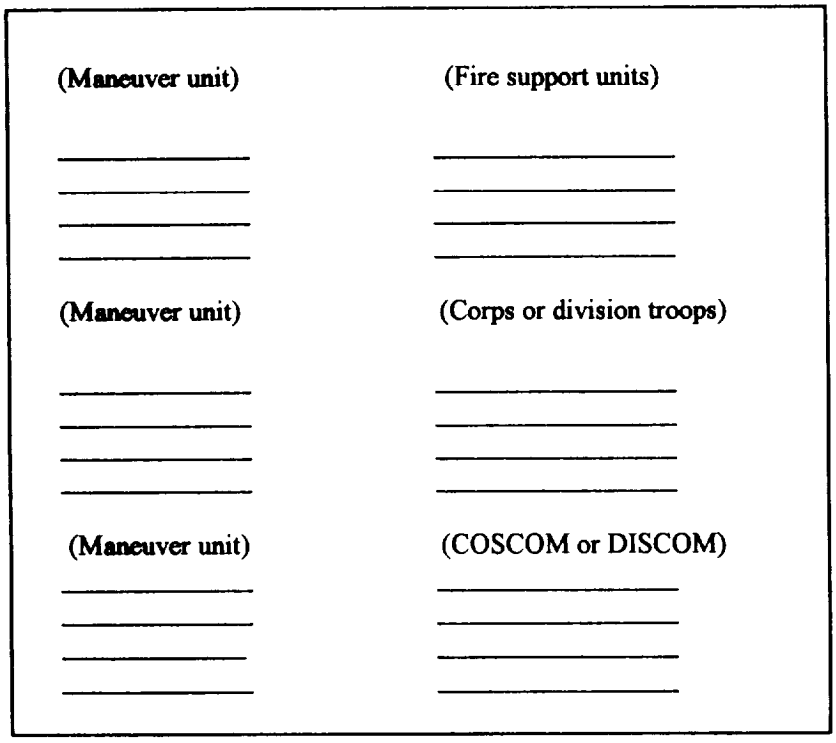

Figure 5-2. The outline method of task organization.

Step 5. Give the numerical designations of units in Arabic numerals (such as 10th Corps, 3d Corps or 23d Armd Div). To distinguish national forces of two or more nations, insert distinguishing letters for the country between the numeric designation and the unit name (for example, 3d (GE) Corps). The following are acceptable methods for abbreviating the full designation:

- 1/A/1-77 Mech (1st Plt, Co A, 1st Bn, 77th Mech Bde).
- l/B/52d Sig (1st Pit, Co B (Fwd Co), 52d Sig Bn).
- A/1-40 FA (155, SP) (Btry A, 1st Bn (155, SP), 40th FA).

In the preceding examples, a dash used between two numbers identities a battalion designated under the Combat Arms Regimental System (CARS). Designate task forces by using the last name of the commander of the task force (TF SMITH), by using a code name (TF WARRIOR), or by using a number (TF 47 *or* TF 1-77).

Step 6. In this step-

- Group units other than MSCs and units which are attached to or support a MSC under a single heading which reflects that they are under the command and control of the force headquarters (for example, division control).
- List maneuver units first, followed by units providing combat support, then CSS units.

- List CS units by size of command echelon, then alphabetically. List CSS units under force headquarters control (for example, civil affairs units) by size of command echelon, then alphabetically.

When using the outline method, subordinate commanders name COMMZs either geographically or numerically. They designate units subordinate to Theater Army numerically (for example, 1st Personnel command, 13th Theater Army Area Command). They designate CSS installations as follows:

- Supply points (SUPPTs) by number, class (cl) or classes of supply, and organization or area supported (for example, SUPPT 913, Cl V, 10th Corps). Do not designate two supply points by the same number.

- Distribution supply points (DSP) by class or classes of supply and organization (for example, Cl I DSP, 52d Mech Div, or Cl II and IV DSP, 23d Armd Div).

(2) The matrix method. The matrix method (fig 5-3 and subparagraph 5-3e) of task organization has many appealing characteristics and is especially convenient at lower echelons (brigade and below). Commanders and staffs must be fully aware that matrix formats are not standardized, and the US *has not* made agmements with alliance members governing their use. Therefore, *headquarters conducting joint or combined operational planning or execution must not use matrix formats for distribution outside their headquarters.*

The matrix method has several advantages:

It displays at a glance the command and support relationships for each subordinate unit and the force as a whole.

- It shows the organization for combat for CS elements
- It shows the organization for combat for CSS elements.
- It makes accounting for each unit easier
- It conserves space

See figures 5-4,5-5, and 5-6 for examples of task organizations using the matrix method.

When using the matrix method to task organize corps and division-

- List major subordinate maneuver commands along the top of the matrix and list corps or division troopsinthelastspaceontheright.
- Normally, the divisions' brigades are not listed in the maneuver space on corps orders; however, on division orders, *list* attached maneuver battalions under their brigades.
- List maneuver units in the maneuver space under the gaining headquarters if they are cross-attached.
- List in the maneuver space under the gaining command the "slice" of support that comes with a task force if it is to be attached.

C^2HQ-->					
M A N E U V E R					
Avn					
Cav					
FA					
ADA					
Cml					
Engr					
MI					
MP					
Sig					
CSS					

Figure 5-3. The matrix method of task organization.

- Array CS units along their respective space in the columns of the appropriate headquarters.

- Specify command relationship (OPCON) or a support relationship (DS, R, GSR, GS) on units not inherently implied as attached.

When task organizing brigades and battalions-

- List major subordinate maneuver commands or TP designations along the top of the matrix. List brigade control or battalion control in the last space on the right.

- On brigade orders, list maneuver battalions separately down the left column in lieu of the normal maneuver label. On battalion ordezs, similarly list maneuver companies.

- If no cross-attachment ccurs, leave the space blank.

- If maneuver units or elements (companies or platoons) are cross-attached, list them along the line under the appopriate headquarters.

- Array CS units along their respective space in columns of the appropriate headquarters.

Attachment is implied unless the commander specifies a command relationship (OPCON) or a support relationship (DS, R, GSR, GS).

e. Task organization sequence for OPLAN and OPORD.

Corps level:

Divisions (note 2)
- Infentry
- Light infantry
- Mechanized infantry
- Motorized infantry
- Air assault
- Airborne
- Armored

Separate ground maneuver brigades or battalions or both (note3)
- Infantry
- Light infantry
- Mechanized infamy
- Armored

Aviation brigades

Armored cavalry regiment

corps artillery

corps troops (-4)
- Air defense artillery
- chemical
- Engineer brigade or group
- Long-range surveillance company (LRSC)
- Military intelligence
- Military police
- Signal corps

Corps support command (note 5)

Division level:

Task force of brigade size
- Named task forces (in alphabetical order)
- Numbered task forces (in alphanumeric order)

Brigades (in alphanumeric order)

Aviation brigade
- Task force of battalion size
- Named task forces (in alphabetical order)
- Numbered task forces (in alphanumeric order)

Cavalry squadron (note 6)

Division artillery

Division troops (note 4)
- ADA
- Chemical
- Engineer brigade or group
- Military intelligence battalion
- UAV battery (note 7)
- Military police (note 8)
- Signal corps

Division support command (note 5)

Brigade level:

Task forces of battalion size
- Named task force (in alphabetical order)
- Numbered task forces (in alphanumeric order)

Battalions
- Infantry
- Light infantry
- Mechanized infantry
- Air assault
- Airborne
- Armored

Separate ground maneuver battalions or companies or both (note 3)
- Named teams (in alphabetical order)
- Numbered teams (in alphanumeric order)

Aviation battalions (companies)
- Cavalry squadron (troops)
- Artillery brigade or battalion

Brigade troops (note 3)
- ADA
- Chemical
- Engineer battalion
- Military intelligence
- Military police
- Signal corps

Support battalion (note 5)

Battalion level:

Company teams of company size
- Named teams (in alphabetical order)
- Numbered teams (in alphanumeric order)

Companies
- Infantry
- Light infantry
- Armored
- Antitank

Aviation company

Cavalry troop

Artillery battery

Battalion troops
Scout platoon
Mortar platoon
ADA
Chemical
Engineer company
Military intelligence

Mechanized infantry
Air assault
Airborne
Battalion trains (note 5)

Company Level:

Organic platoons
Attached platoons
Company troops
Mortars
Air Defense
Military intelligence
Company trains (note 5)

NOTES: 1. Reinforced or detached (a force modifier) indicates the addition (+) of a next subordinate element or detachment (-) of the next subordinate element. The use of these symbols is limited to units of similar function having a command relationship to the higher headquarters. Symbols are always shown in parenthesis. Their use alerts commanders and staffs of significant changes to a unit's force structure. As such, they are not precise and require additional information to determine the unit's exact subelement composition. Use the symbols when adding or deleting one or more subelements of similar functions from the parent unit. For example, if C company loses one platoon to B company, designate it as C Co (-). When two units swap one or more subelements (net gain is null), they would not receive a symbol. (Do not use the (+) and (-) together.) In another example, if the 53d Mech Div received a maneuver bde in addition to its normally associated maneuver brigades, it would be shown as 53d Mech Div (+); however, it would not show a (+) if it received an additional FA Bde (different function). In the last case, the 53d DIVARTY would show the (+).

2. Indenting one unit under another means the indented unit is subordinate to the other unit. That is, the command relationship is either organic, assigned, or attached. If the command relationship is not organic, assigned, or attached, then the modifier will immediately follow the affected unit, such as when a unit is OPCON to another. All indentations will be two spaces (characters) for either outline or matrix methods. For example:

1st Bde
1st Atk He1 Co: DS

3. List separate ground maneuver brigades, battalions, and companies in the same order as divisions are listed in the corps structure.

4. List CS units by the size of command echelon, then list them alphabetically. List largest units before smallest unit 23 of the same type.

5. List CSS units by size of command echelon, then alphabetically.

6. List the cavalvrysquadron separately when it is operating under division control.

7. NormaIIy, attach forward control sections to the headquarters of the MSC or force. Attach the battery (minus) to the MI unit for operations.

8. Attach the band to the MPs or headquarters and headquarters company (HHC) for tactical operations center security (main CP).

ANNEX A (TASK ORGANIZATION) to OPERATION ORDER 10-3-10th (US) Corps

	21st Inf Div (Lt)	52d Mech Div	53d Mech Div	23d Armd Div	208th ACR	Corps Troops
MANEUVER	(-)	TF 1/21st Inf Div 2-66 Inf 2-67 Inf 2-68 Inf 2-45 FA (105, T) A/2-439 ADA (Gun/Stinger) 1/21st Engr 1/21st MP Co 1st FSB	TF 2/21st Inf Div 2-69 Inf 2-70 Inf 2-71 Inf 2-72 Inf 194th Aslt Hel Bn: OPCON 195th Aslt Hel Bn: OPCON 2-46 FA (105, T) 2/21st Engr 2/21st MP Co 2d FSB			
AVN		116th Aslt Hel Bn: OPCON				10th Avn Bde (-)
FA			66th FA Bde: R: 53d Mech DIVARTY: OO, R 52d Mech DIVARTY 2-611 FA (203, SP) 2-612 FA (203, SP) 2-641 FA (155, SP) 2-642 FA (155, SP) 2-643 FA (155, SP) 69th FA Bde: R 53d Mech DIVARTY OO,R 52d Mech DIVARTY 2-608 FA (203, SP) 2-609 FA (203, SP) 2-638 FA (155, SP) 2-639 FA (155, SP) 2-640 FA (155, SP)	67th FA Bde: OPCON 2-616 FA (203, SP) 2-628 FA (203, SP) 2-631 FA (155, SP) 2-634 FA (155, SP) 2-635 FA (155, SP)		Corps Arty 68th FA Bde: GS 1-206 FA (Lance) 1-207 FA (Lance) 1-208 FA (Lance) 2-614 FA (203, SP) 2-675 FA (MLRS) 70th FS Bde: GS; OO, GSR 52d Mech DIVARTY 2-606 FA (203, SP) 2-607 FA (203, SP) 2-636 FA (155, SP) 2-637 FA (155, SP)
ADA	A/1-433 ADA (Chap): R				B/1-433 ADA (Chap)	10th ADA Bde (-)
CML			421st Smoke Genr Co (Mech): DS	422d Smoke Genr Co (Mech): DS		40th Cml Bde (-)
ENGR		500th Engr Cbt Bn (Corps) (Whl) 5045th Aslt Ftlbrg Co (Ribbon)	5047th Aslt Fltbrg Co (Ribbon) 5080th Cbt Spt Equip Co			53d Engr Bde (-)
MI						20th MI Bde
MP			270th MP Co			20th M P Bde (-)
SC						70th Sig Bde
OTHER						701st Sep Antiarmor Bn 200th PSYOP Bn 10th Fin Gp 10th Pers Gp 55th CA Tac Spt Bn 10th COSCOM

Figure 5-4. Task organization for 10th Corps using matrix.

ANNEX A (TASK ORGANIZATION) to OPERATION PLAN 29-6-54th Mech Div

	1st Bde	2d Bde	3d Bde	3d Bde, 23d Armd Div	54th Avn Bde	Div Troop
MANEUVER	3-77 Mech 3-2 Armor 3-3 Armor	3-78 Mech 3-79 Mech 3-4 Armor	3-80 Mech 3-81 Mech 3-5 Armor 3-25 Armor (-)	1-93 Mech 1-94 Mech 1-14 Armor 1-15 Armor	A/3-25 Armor	
AVN			155th Atk Hel Bn: OO, OPCON			54th Avn Bde
CAV						3-23 Cav
FA		3-41 FA (155, SP): DS 2-634 FA (155, SP): R 3-41 FA	3-42 FA (155, SP): DS 3-40 FA (155, SP): R 3-42 FA; OO, DS 1st Bde	1-52 FA (155, SP): DS 2-631 FA (155, SP): R 1-52 FA		54th Mech DIVARTY: GS 67th FA Bde: GSR 2-216 FA (MLRS) 2-628 FA (MLRS) C/43 FA (MLRS) D/20 FA (Tgt Acq)
ADA	A/3-441 ADA: DS	B/3-441 ADA: DS	C/3-441 ADA: GS	C/1-441 ADA: DS	4/C/3-441 ADA: DS	3-441 ADA (-) A/1-433 ADA (Chap)
CML		2/54th Cml Co (Decon): DS	3/54th Cml Co (Decon): DS 5/54th Cml Co (Smoke): DS	3/23d Cml Co (Decon): DS 424th Smoke Genr Co (Mech): DS		54th Cml Co (-)
ENGR	541st Engr Bn: DS	542d Engr Bn (-): DS	543d Engr Bn: DS	233d Engr Bn: DS		54th Engr Bde (-) 61st Engr Gp: DS
MI		GSR Sqd 1/L&S Co/54th MI	GSR Sqd 2/L&S /Co/54th MI	GSR Sqd 3/L&S Co/54th MI		54th MI Co (-)
MP		2/54th MP Co: DS	3/54th MP Co: DS	3/23d MP Co: DS		54th MP Co (-)
Sig						54th Sig
CSS	1st FSB: DS	2d FSB: DS	3d FSB: DS	3d FSB, 23d Armd Div: DS		DISCOM

Figure 5-5. Task organization for 54th Mech Div using matrix.

ANNEX A (TASK ORGANIZATION) to OPERATION PLAN 96-6-3d Bde, 54th Mech Div

	TF 3-80	TF 3-81	TF 3-5	TF 3-25	Bde control
3-80 Mech	C, D, E/3-80		A/3-80	B/3-80	
3-81 Mech					
3-5 Armor	A, B/3-5		C, D/3-5		
3-25 Armor		A/3-25		B, C, D/3-25	
FA					3-42 FA (155, SP): DS 3-40 FA (155,SP): R 3-42 FA
ADA	1/C: DS		2/C: DS	3/C: DS	C/3-441 ADA (-): OPCON
Cml					3/54th Cml Co (Decon): DS 5/54th Cml Co (Smoke): DS
Engr	C/543d Engr Bn: DS	D/543d Engr Bn: DS			543d Engr Bn (-): OPCON
MI					GSR Sqd 2/I&S Co/54th MI
CSS					3d FSB: DS

Figure 5-6. Task organization for 3d Bde, 54th Mech Div using matrix.

UNCLASSIFIED SAMPLE

5-4. EXECUTION AND SUPERVISION

During execution of the order, the staff and commander continually process the latest information, determining where and how it affects the operation. They enter the decisionmaking process based on the type of information they receive, arrive at a decision, determine the actions required, and issue the orders to execute the actions. Actions and orders are ongoing at all levels of command and at all command posts, each dealing with its areas of responsibility. This may require going through the entire process again

or making only minor changes as impact of facts and assumptions is determined. Regardless, the staff and commander must actively focus on retaining or regaining the initiative during the current operation.

Supervision is ongoing throughout the decisionmaking process, whether it pertains to current or future operations. Through supervision, the commander ensures his decisions are implemented and his intent understood.

Once the orders are issued, commanders supervise the preparation and execution. Supervision spans a wide variety of activities, including synchoronization of the battle and leadership. The commander attempts to orchestrate the battle in concert with the original plan that everyone understands: however, the unit must understand the commander's intent and be prepared for change based on any new situation.

Continuity must be maintained and turmoil reduced to minimum. Syncronization essential to retain the initiative.

Commuications must not interfere with the responsibilities of subordinate commander; they should ensure or verify that the mission is accomplished in with the overall intent of the force commander and commanders two echelons above the force HQ.

All actions taken by the commanders and staff must-

- Recognize the decision cycle time and the planning horizon (future orientation of planning necessary to synchronize operations).

- Concentrate decisive combat power at the right place and time to defeat the enemy and accomplish the mission.

- Focus on destabilizing the enemy.

- Collect information that will enable the HQ to determine if the operation is going according to the plan or needs adjustment.

- Capitalize on success.

- Ensure the synchronization of combat power results in raining (or regaining) the initiative and will result in victory.

5-5. MISSION ANALYSIS BRIEFING FORMAT

Before completing mission analysis, the briefer should be familiar with-

- Areas of operations and area of interest.

- Enemy situation and capabilities.

- Time available to plan and execute operations.

- Friendly troops available.

Briefer	*Subject*
CofS or G3	1. Purpose and agenda. 2. Area of operations and area of interest.
G2	Initial intelligence estimate. *a.* Terrain analysis (areas of operations and interest and avenues of approach). *b. Weather* analysis. *c.* Threat integration with situation with situation template(s). Possible enemy courses(s) of action (minimum of "most likey" and "most dangerous").
G3	1. Mission of higher headquarters. 2. Intent of high headquarters (higher and next higher commanders). 3. Facts. 4. Assumptions. 5. Limitations on the operation. 6. Specified tasks. 7. Implied task. 8. Essential tasks. 9. Conclusions. *a.* Shortfalls and war stoppers. *b. Recommendations.*

NOTE: The G1/G4 would brief according to the following format in a classroom environment; in the field, he would brief only significant items.

G1 1. Manning (quality of life, penonnel service support (PSS), and health service support (HSS) portions of sustain the soldiers and systems).

a. Facts.
(1) Personnel strength and morale.
(2) Replacements and medical return to duty.
(3) critical shortages.

b. Assumptions.
(1) Replacements.
(2) Host nation support.
(3) Other.

c. Conclusion.
(1) Projected strengths on D-day.
(2) Projected critical MOS status on D-day.
(3) Shortfalls and war stoppers.
(4) Recommendations.

G4 2. Sustaining the soldiers and their systems.

a. Facts
(1) Class VII status.
(2) Classes I, II, III (pkg), Iv, VI, VII, x, and water status.
(3) Status of field services.
(4) critical shortages.

b. Assumptions.
(1) Resupply rates.
(2) Host nation support.
(3) Other.
c. Cunclusions.
(1) Rejected supply levels and field service status on D-day.
(2) Shortfalls and war stoppers.
(3) Projected treatment capability.
(4) Recommendations.

3. Arming.
a. Facts.
(1) Class v status
(2) Distribution system.
(3) Restrictions.
(4) Critical shortages.
b. Assumptions.
(1) Resupply rates.
(2) Host nation support.
(3) Other.
c. Conclusions.
(1) Projected supply status on D-day.
(2) Projected distribution system.
(3) Shortfalls and war stoppers.
(4) Recommendations.

4. Fueling.
a. Facts.
(1) Class III (bulk) status.
(2) Distribution system (fuel system supply point, refuel on the move (ROM), rail to tanker, pipeline, and air).
(3) Restrictions.
(4) Critical shortages.
b. Ammptions.
(1) Resupply rates.
(2) Host nation support
(3) Other.
c. Conclusions.
(1) Projected supply status on D-day.
(2) Projected distribution system.
(3) Shortfalls and war stoppers.
(4) Recommendations.

5. Fixing.
a. Facts.
(1) Maintenance status (equipment readiness).
(2) Class lx status.
(3) Repair times, evacuation policy, and assets.
(4) Critical shortages.

Briefer	*Subject*
	b. Assumptions. (1) Host nation support. (2) *Other.* c. Conclusions. (1) Projected maintenance status on D-day. *(2)* Shortfalls and war stoppers. *(3) Recommendations.* *6. Moving.* *a.* Facts. (1) Status of transportation assets.. *(2)* Critical LOC and MSR status (air, water, rail, road, and transfer points). *(3) Critical shortages.* *b. Assumptions.* (1) Host nation support. (2) *Other.* c. Conclusions. (1) Projected status of transportation assets on D-day. *(2)* Projected status of LOCs and MSRs. *(3)* Shortfalls and war stoppers. *(4) Recommendations.*
G5	1. Initial civil-military operations estimate. *a. Political* analysis. b. Economic analysis. c. Sociological analysis. *d.* Foreign nation support. *2. Assumptions.* *a.* Host nation support. *b. Other.* *3. Conclusion.* *a.* Projected foreign nation support on D-day. *b.* Projected host nation support on D-day. c. Shortfalls and war stoppers. *d.* Recommendations.
CofS or G3	1. Proposed restated mission. *2.* Commander's guidance requested.

5-6. COURSE OF ACTION BRIEFING FORMAT

Prior to developing and subsequently briefing other staff members on proposed course of action, the *G3 must know and understand-*

- **Mission of higher HQ**.
- **Higher commander's intent**.

- Own commander's guidance and intent.
- Terrain and weather.
- Possible enemy course(s) of action.
- Current situation and forces available.
- Relative combat power required for operation.
- Size of units to array.
- Objectives (freindly or enemy).

Briefer	*Subject*
G2	1. Updated intelligence situation. *a.* Terrain analysis. *b.* Weather analysis. *c.* Threat evaluation. 2. Possible enemy course(s) of action. Situation tamplate(s).
G3	1. Restated mission. 2. Higher and own commander's intent. 3. Course of action statement and sketch as a single entity. *a.* Sketch includes array of forces and control measures for entire operation (may be a VGT or on butcher paper). *b.* Statement includes scheme of maneuver and addresses- (1) Battlefield framework: close, deep, rear, and security operations and reserves. (2) The main effort. (3) Any significant risk accepted. 4. Course of action rationale for each course of action. *a.* Considerations affected by possible enemy course(s) of action to be war gamed. *b.* Deductions resulting from relative combat power analysis. *c.* Why units are arrayed as shown on the sketch. *d.* Why selected control measures are used.
G1/G4/G5	5. Updated fads and assumptions, if available.

5-7. WAR GAME! BRIEFING FORMAT

Prior to war game, the war gamer must know-

- Terrain analysis for the area of operations.
- Enemy situation and capabilities.

- Friendly and enemy course of action to be war gamed.
- Friendly forces available.
- What combat multiplies are available.
- Assumptions used.
- List of critical events.
- War game technique(s) to be used.
- Recording method.

Brief (for each course of action war gamed)-

Briefer	*Subject*
G3	1. Intent of higher headquarters (higher and next higher or next higher commanders). 2. Mission.
G2	1. Updated intelligence estimate (terrain, weather, and enemy situation) 2. Enemy course(s) of action war gamed.
G3	1. The course of action war gamed. 2. Assumptions. 3. War game technique used (belt, box, or avenue). 4. Critical events war gamed. 5. Visualization of the entire operation. *a.* Each critical event. *b.* Actions one level down (corps address divisions, divisions address brigades). *c.* Combat support and combat service support units needed for mission accomplishment.
G2	Possible enemy actions/reactions considered during the war gaming.
G3	**Results of the war game.** *a.* Synchronization matrix. *b.* Modifications to the course of action (if required). *c.* Proposed task organization and organization for combat to support the course of action. *d.* Decision support template and event template. *e.* Priorities for combat and combat service support units. *f.* Estimated time required for the operation. *g.* Estimated enemy losses. *h.* Estimated friendly losses.

Briefer	*Subject*
	i. Advantages to the course of action using a decision matrix. *j.* Disadvantages to the course of action to include any accepted risk.
G1/G4	Significant events (as required).

5-8. DECISION BRIEFING FORMAT

Prior to comparing courses of action and subsequently briefing the commander on which course of action should be adopted, the briefers should be familiar with and have available—

- Assumptions.
- Course of action sketches and statements.
- War game worksheets or notes.
- Staff estimates (notes or written estimates).

Briefer	*Subject*
G3	1. Intent of higher headquarters (higher and next higher commanders.) 2. Restated mission. 3. Status of own forces.
G2	Undated intelligence estimate. *a.* Terrain analysis. *b.* Weather analysis. *c.* Enemy situation-COA.
G3	Own course(s) of action.
G3, G2 G1, G4, ad G5, in order	1. Assumptions used in planning. 2. Results of staff estimate. 3. Advantages and disadvantages (including risk) of each course of action (with decision matrix or table showing course of action comparison). 4. Recommended course of action (may differ from other staff).
CS/XO	Recommended course of action.

5-9. OPERATION PLAN OR ORDER BRIEFING FORMAT

Prior to briefing the operation plan or order, the briefer must be familiar with and have available—

- Appropriate maps posted with overlays.
- Complete plan or order of higher headquarters.

Briefer *Subject*

- Mission of adjacent units.
- Latest intelligence, main, and weather data.
- War gaming notes for selected course of action

G3

1. Intent of higher headquarters (higher and next higher commanders.)
2. Assumptions (OPLAN).

G2

Updated intelligence estimate.

a. Tarrain analysis.
b. Weather analysis.
c. Enemy situation.

G3

1. Paragraph 2-Mission statement (VGT or butcher paper).
2. Task or-on (VGT or butcher paper).
3. Subparagraph 3a-Concept of the Operation (use operation overlay for illustration).
   a. Scheme of maneuver in terms of battlefield framework.
   b. Main effort.
   c. Fire support (FSCOORD may brief here).
   d. GS priorities.
   e. Decision support template and matrix.
4. Subpsragraph 3b-Tasks to Maneuver Units.
5. Subparagraph 3d-Coordinating Instructions.

G4/Gl

Subparagraph 4u-General Concept of Support (use CSS overlay for illustration).

a. A brief synopsis of the support command mission.
b. Support command headquarters/support area locations, including locations of next higher logistics base(s).
c. Next higher's support priorities and where our unit(s) fit into those priorities.
d. Support priorities.
e. Unit(s) in the next higher CSS organization supporting us.
f. Sign&ant/unusual CSS with impact on overall operational phases.
g. Before operations in terms of significant, critical, non-SOP, or unusual sustainment dictions and external and internal priorities.
h. During operation in terms of significant, critical, non-SOP, or unusual sustainment functions and external priorities. (The during position of support is phased if the concept of the operation is phased.)
i. After operations in terms of significant, critical, non-SOP, or unusual sustainment functions and external and internal priorities.
j. Any significant risks.

NOTE: Additional CSS information-manning (PSS and HSS), sustaining the soldier (supply and field services), arming, fueling, fixing moving, and protecting--may be in subparagraphs or in a separate service support annex.

Briefer	*Subject*
G5	Subparagraph 4b—Civil-Military Operations—before, during, and after operations (this information may instead be in a separate annex).
G3	Paragraph 5—Command and Signal.

5-10. EXECUTION AND SUPERVISION

During execution of the order, the staff and commander continually process the latest information, determining where and how it affects the operation. They enter the decisionmaking process based on the type of information received, arrive at a decision, determine the actions required, and issue the orders to execute those actions. Actions and orders are ongoing at all levels of command and at all command posts, each dealing with their areas of responsibility. This may require going through the entire process again or may mean only minor changes as the impact of facts and assumptions is determined. Regardless, the staff and commander must actively focus on retaining or regaining the initiative during the current operation.

Supervision is ongoing throughout the decisionmaking process whether it pertains to current or future operations. Through supervision, the commander ensures his decisions are implemented and his intent understood.

Once the orders are issued, commanders supervise the preparation and execution. Supervision spans a wide variety of activities including synchronization of the battle and leadership. The commander attempts to orchestrate the battle in concert with the original plan that everyone understands; however, the unit must understand the commander's intent and be prepared for change based on any new situation.

Continuity must be maintained and turmoil reduced to a minimum. Synchronization is essential to retain the initiative.

Communications must not interfere with the responsibilities of subordinate commanders but rather should ensure or verify that the mission is being accomplished in accordance with the overall intent of the force commander and commanders two echelons above the force headquarters.

All actions taken by the commander and staff must—

- Recognize the decision cycle time and the planning horizon (future orientation of planning necessary to synchronize operations).
- Concentrate decisive combat power at the right place and time to defeat the enemy and accomplish the mission.
- Focus on destabilizing the enemy.
- Collect information that will enable the headquarters to determine if the operation is going as per the plan or needs adjustment.
- Capitalize on success.
- Ensure the synchronization of combat power results in retaining (or regaining) the initiative and will result in victory.

CHAPTER 6

PREPARING OPERATION PLANS AND ORDERS

6-1. INTRODUCTION

A plan is the method or scheme of how the commander will synchronize military actions. It is a proposal for executing a command decision or project. A plan represents the command's preparation in a specific area to meet a particular event. Plans also help the staff synchronize the commander's decisions and concepts for future or anticipated tactical operations. Since plans concern future operations and help the staff make assumptions about the nature of the tactical situation at the time of execution, they cannot remain static. As the commander and staff change or adjust their estimates to reflect the current analysis of the situation, they must also change the plans.

An *order* is a written or oral communication directing actions. The Army uses many types of combat orders for specific purposes in relation to the echelon of command and the time available to execute the actions. The only difference between a plan and an order is that the time the plan will be executed remains unspecified (although it may specify the conditions under which it is to be placed in effect), and an order's execution is always imminent, if not immediate. In addition, the OPLAN typically lists assumptions.

6-2. CHARACTERISTICS OF OPERATION PLANS AND ORDERS

- Critical facts and assumptions. The commander and staff evaluate all facts and assumptions and retain those that directly affect an operation's success or failure.

- Authoritative expression, clarity, and brevity. The plan order must reflect the commander's intention and unmistakably state what the commander wants subordinates to do. The plan or order must contain only necessary details expressed in short words, sentences, and paragraphs. Everyone using the plan or order must readily understand it.

- Simplicity. A good plan reduces all essential elements to their simplest form. eliminating elements not essential to successful, decisive action. Simplicity also reduces possibilities for misunderstanding.

- An adequate, concise mission statement

- Positive expression. The writers states plans and orders affirmatively. He uses, "The trains will remain in the assembly area," rather than, "The trains will not accompany the unit." The writer should also avoid qualifying directives; he should not use meaningless expressions such as "as soon as possible."

- Balance between centralization and decentralization. The commander determines the appropriate balance for a given operation by using METT-T. During the chaos of battle, it is essential to decentralize decision authority to the lowest practical level. Overcentralization shows action, leads to inertia, and contributes to loss of initiative; however, decentralization can cause loss of precision. The commander must constantly balance competing risks while recognizing that loss of precision is usually preferable to inaction.

- Control means. The plan or order must ensure adequate headquarters and communications

- Organization. A good plan or order clearly establishes command and support relationships and fixes responsibilities.

- Coordination. A well-cordinated plan or order provides for direct contact among subordinates; synchronizes combat power elements: imposes only necessary and doctrinally correct control measures; and helps identify and provide for mutual support requirements while minimizing the force's exposure to fratricide.

- Flexibility. A good plan leaves room for adjustments which unexpected operating conditions might cause. Normally the best plan leaves the commander with the most flexibility.

- Support and resources. A good plan provides for personnel and materiel for the full period of the contemplated operation. This includes resources organic to the organization and those available from higher hcadquarters. Subordinate commanders must have sufficient resources to accomplish their missions.

- Statement of essential tasks that subordinate commanders must accomplish.

- Time lines. The initiating commander sends plans and orders to subordinate commands in time to allow them to adequately plan and prepare their own actions.

6-3. TYPES OF PLANS

a. An *outline plan* is a preliminary plan. "Outline" indicates the plan's degree of completeness. An outline plan states important features or principles of a course of action before detailed planning begins; commanders use outline plans to test concepts in general before beginning detailed planning. An outline plan-

- Provides information to higher headquarters.
- Seeks approval and allocation of resources
- Obtains opinions and recommendations of subordinate commanders.
- Assists in reaching a decision.
- Initiates and makes planning easier at lower levels.

b. A *strategic plan* provides for the overall conduct of war. It identifies broad aims, policies, and strategic objectives for operations in large areas over a considerable time period. Higher level commanders use this plan for guiding and controlling a large command's operations.

c. A *campaign plan* provides for a series of related military operations to accomplish a common objective normally within given times. spaces, and resources. Again, higher level commanders use this plan for controlling and directing a large command.

d. An *operation Plan* (OPLAN) is any plan that commands use to conduct military operations. The OPLAN-

- Pertains to a single operation or series of connected operations that the force performs simultancously or in succession.
- States critical assumptions which form the basis of the plan (in paragraph Id of the OPLAN).
- Is used by a higher authority to permit subordinate commanders to prepare supporting plans and orders

- May implement operations derived from a campaign plan.

- Is put into effect at a prescribed time or when the conditions of execution occur.

e. A *service support plan (SSPLAN)* provides information and instructions covering an operation's service support. The command's operational requirements, as appropriate estimates determine, are the basis for the service support plan. When put into effect, the plan becomes the service support order.

f. A *contingency plan*, which provides for accomplishing different, anticipated major events before, during, and after an operation.

6-4. COMBAT ORDERS

Combat orders pertain to strategic, operational, or tactical operations and attendant service support in the field. The commander may first issue a plan that later becomes an order. Combat orders include-

- Mission orders (MSNORDs).

- Operation orders (OPORDs).

- Service support orders (SSORDs).

- Road movement orders (RMORDs)

- Warning orders (WOs)

- Fragmentary orders (FRAGOs)

An order expresses the commander's guidance and decision as well as approved branches and sequels. It includes annexes only when absolutely necessary and when they are pertinent to the entire command. Annexes describe the synchronization that must occur to accomplish the command's essential tasks.

a. Mission orders (MSNORD) provide essential information to subordinate commanders. They state what to do but not how to do it. Mission orders contain-

- The task organization

- The higher commander's mission and intent.

- The mission statement.

- The commander's intent.

- The commander's main effort.

- Minimum coordination instructions by which to produce synchronized operations at critical points in the battle.

The commander personally issues mission orders; there is no set format for them. Subordinate and supporting commanders generally use mission orders-

- When the situation is fluid, such as in exploitation and pursuit operations

- When the enemy force has lost the initiative and is incapable of major, strong, effective, synchronized action.

- When the available friendly forces are a cohesive force capable of rapid, synchronized action without detailed guidance. During high-tempo combat operations, commanders use mission orders at all echelons to exercise command and control.

h. An *operation order (OPORD)* (standard format at subparagraph *6-5a* of this book and format for use by a CSS unit at subparagraph 6-5b) is for subordinate commanders' use to direct unit operations in support of the mission. The commander may initially issue an OPORD, either verbally or in writing, as a plan. All OPORDS-

- Have five paragraphs.

- Provide a mission statement (who, what, when, where, and why)

- Convey the commander's intent, concept of operation, and decisions to subordinates

- Specify an execution time and date.

- Explain the scheme of maneuver.

- Task organize to provide subordinate commanders with resources while applying as few limitations as possible.

- Include a completed overlay that graphically illustrates many of the operation's details, including the mission statement (paragraph 2); the commander's intent and concept of operation (paragraph 3a); minimal control measures, which promote initiative, synchronization, and agility while minimizing exposure to fratricide; and major subordinate elements in the task organization that are critical to understanding the commander's intent.

Subordinate commanders generally use OPORDs-

- When the situation requires deliberate execution.

- When the enemy force is capable of major, strong, effective, synchronized action

- When there is sufficient time available for planning and troop-leading procedures.

- When the available friendly forces are unfamiliar with each other's SOPs

NOTE: Paragraph 1 d of the OPLAN contains critical assumptions, Subordinate and supporting commands can use these assumptions in their situation-assessment process. *Operation orders do not list assumptions.*

The CofS/XO supervises staff input when preparing the OPORD to ensure compliance with the commander's intent, concept of operation, and other guidance. The G3/S3 has primary coordinating staff responsibility for preparing, publishing, and distributing the OPORD within the command. Other staff officers provide those parts of the order concerning their responsibilities. Their input may contain a single sentence or a complete annex, depending on their requirements.

The commander normally modifies OPORDs by issuing FRAGOs. When the mission changes significantly or \vhen a new mission occurs. he issues a new order (in writing when possible).

The OPORD joint or combined commands use essentially parallels the structure of the standard five-paragraph OPORD. (See JP 1-02.) The most notable differences are a slight change in paragraph names and an absence of specific subparagraph structure.

The staff includes only, those details in the OPORD which commanders of subordinate units need to plan their own orders and to ensure initiative. agility, and synchronization. They do not detail *how* supporting and special units are to do their tasks; the units' own orders do that.

c. The *service support order (SWORD)* (format at subparagraph 6-5*c)* provides the plan for service support of operations, including administrative movements. The staff may issue SSORDs either with an OPORD or separately,. Staffs use SSORDs to provide information to supported elements. They serve as the basis for the orders of supporting commanders to their units. At higher levels of command, the SSORD generally replaces an OPORD's sewice support annex. If that happens, the staff refers to the existence of the SSORD in paragraph 4 of the OPORD. Staffs at lower levels of command can cover all necessary information in paragraph 4 of the OPORD without annexes or a separate SSORD. The commander may issue an SSORD separately when he expects the CSS situation to apply to more than one operation plan or order. The SSORD follows the same format as the OPORD. It is usually in writing and may include overlays, traces, and other annexes.

The G4/SJ has primary coordinating responsibility for preparing, publishing, and distributing the command's SSORDs Other staff officers. both coordinating and special, provide those parts of the order concerning their responsibilities. Their input may be a single sentence or a complete annex.

Commander's may authorize the G4/S4 to change SSORDs by issuing FRAGOs. The higher headquarters issues a new SSORD when there is a complete change in the CSS or tactical situation or when many changes make the current order ineffective.

d. The *road movement order (RVORD)* (format at subparagraph 6-W) is a stand-alone order which facilitates an uncommitted unit's ground movement in rear areas The movements are typically administrative in which troops and vehicles are arranged to expedite their movement and conserve time and energy when no enemy interference (except by air) is anticipated. Normally, these movements are conducted in the communications zone: however, depending on the commander's estimate, they may be conducted in the combat zone.

The G4/S4 has primary coordinating staff responsibility for planning and coordinating road movements; however, he receives assistance from other coordinating and special staff officers, namely, G3/S3, PM, and MP and movement-control personnel. The G4/S4 is also responsible for preparing, publishing, and distributing the commander's RMORD.

Commanders may authorize the G4/S4 to change RMORDs by issuing FRAGOs. The higher headquarters issues a new RMORD when there is a complete change in the CSS or tactical situation or when many changes make the current order ineffective.

Although intended to stand alone, the RMORD may become a highway regulation annex to an OPORD or SSORD. (In NATO this is referred to as the "movement" annex.) These are typically used by committed units conducting ground movement in rear areas of the combat zone where enemy interference is expected. These tactical movements are planned and coordinated by the G3/S3.

e. The *warning order (WO)* (format at subparagraph 6-5*e*) helps subordinate units and their staffs begin preparing for new missions. Warning orders maximize subordinates' planning time, provide essential details of the impending operation, and detail major timeline events which accompany mission execution.

The amount of detail a WO includes depends on-

- Available time.
- Available communications
- The information subordinate commanders need for proper planning and preparation.

The WO clearly informs the recipient of what tasks he must do now as *well* as *possible future task.*. *The* WO may include the following information (in sequence):

- Required maps (if changed from the current OPORLI).
- The enemy situation; events; and probably, the mission, task, or operation
- The higher headquarters' mission
- The commander's intent statement (when available)
- The earliest time of movement or degree of notice the commander gives to the main body. (This includes the "no move before" period.)
- Orders for preliminary action, reconnaissance, surveillance, and observation.
- Service support instructions, any special equipment necessary, regrouping of transport, or preliminary moves to assembly areas, if necessary.
- The rendezvous point or time for assembly of an orders group, if any; whether commanders or representatives are to attend; and time needed for issuing written orders.

Warning orders use the OPORD format. They are brief, usually oral messages. (At higher command echelons, they are written.) The words "WARNING ORDER precede the message text. The warning order always requires an acknowledgment. With the commander's (or CofS's/XO's) approval, a coordinating or special staff officer may issue a warning order.

Every WO involving movement gives a time period before which no movement by major subelements of the unit is expected. This means the commander must issue another order (a RMORD or a FRAGO) which provides the necessary details and synchronization to execute the move. The subsequent order may extend the no-movement period, or it may specify the time period before a move begins. The purpose of specifying the no-movement and/or degree-of-notice period is to enable the force to properly adjust its current activities to meet fixture missions. (For example, in NATO, this portion of the WO text would read, "All units at 2 hours notice from 31108002." This not only indicates there is to be no move before 1000 but also that the commander does not require the force to prepare equipment for the move until it receives further orders.

If a unit's location requires a 2-hour notice from 0800, the commander knows the unit will not need to move before 1000. The commander, therefore, can expect to have 2 hours in which to get ready after receiving the order to move; however, by 1000, the unit must have completed certain preliminaries for the move. In

calculating degrees of notice, the staff should note the time lag which usually occurs between the arrival of orders at the unit headquarters and their dissemination to the lowest level.

For example, when a unit or formation has 2 hours in which to move, the order to move must reach the headquarters concerned at least 2 hours before time of movement. The time when the order originated is immaterial. Similarly. if the unit or formation is to be brought to 1 hour's notice to move. the order can bc effective only after the lapse of 1 hour.

f. The *fragmentary order (FRAGO)* (format at subparagraph 6-5f) is a mission-type OPORD. It provides timely changes of existing orders to subordinate and supporting commanders while providing notification to higher and adjacent commands. A FRAGO is either oral or written. It addresses those parts of the original OPORD that have changed. The sequence of the OPORD is used, and all five paragraph headings *must* be used. After each heading, the issuing commander or headquarters will send either "No Change" or the new information, regardless of the paragraph. This ensures that recipients know that they have received the entire FRAGO. (This is especially helpful if the FRAGO is sent over the radio.)

Not every situation requires a restatement of paragraphs 2 or 3. A commander may elect to change only, his task organization, his priority of tires or his service support priority. Each of these decisions would result in a FRAGO but should leave all the other portions of the order as "No Change."

The FRAGO differs from an OPORD only in the degree of detail the force needs to execute a task; the FRAGO is brief. It contains information of immediate concern to subordinate and supporting units and-

- Provides the mission statement
- Provides the commander's intent and concept of operation.
- Provides pertinent extracts taken from more detailed orders
- Provides task organization if modified
- Provides minimal control measures that promote initiative, synchronization, and agility while minimizing exposure to fratricide.
- Provides timely changes to existing orders
- Informs higher and adjacent headquarters of changes to existing orders

When possible, the FRAGO includes a brief outline of the situation. It also refers to previous orders and provides brief and specific instructions, The issuing unit marks FRAGOs with the proper classification and requests acknowledgment from the recipient.

a. Operation plan or order format.

(Classification)

(Change from oral orders, if any) [note l]

COPY _ of _ copies
Issuing headquarters
Place of issue (coordinates)
Date-time group of signature
(day, month, year)
Message reference no.

OPERATION PLAN (ORDER) - (code name)
[number]

Reference(s):

Maps, charts, and other relevant documents. When using a map, include the map series number (and country or geographic area, if required), sheet number (and name, if required), edition, and scale (if required) according to requirements of STANAG 2029.

Time Zone Used Throughout the Plan (Order):

The time zone used throughout the order (including annexes, appendixes, and so on) is the time zone applicable to the operation. Times in other zones are converted to this time zone for this operation.

Task Organization:

- Ensure allocation of forces supports the commander's concept.
- If task organization is long, do Annex A (Task Organization).
- List organization by using either the traditional method or the task organization matrix.
- List major subordinate control headquarters in the correct sequence. (See subparagraph 5-3*e* of this book for the task organization sequence for OPLANS and OPORDS.)
- Identify relationships other than attached by placing a colon (:) after the unit and then using the appropriate term: OPCON, DS, GS, GSR, R, etc. Place DS units below the maneuver units they support. A command or support relationship is not a mission assignment. Put mission assignments in paragraph 3 (Execution).

1 [note 2]
(Classification)

96AUGST101C6

OPLAN (OPORD) - (Issuing HQ)
[number]

1. SITUATION

a. Enemy Forces.

- Use an intelligence annex only if the amount of information that must be communicated to the force as a whole is too lengthy. If an annex is necessary, this subparagraph should refer the reader to the annex.

- Ensure subparagraph contains only that information about the enemy that describes the most probable COA he will adopt, expressed in terms of one enemy echelon below (corps addresses enemy divisions, divisions address enemy regiments, etc).

- When possible, provide a sketch of the enemy COA in lieu of verbiage (Appendix _ (Sketch) to Annex B (Intelligence).

- Ensure this subparagraph addresses potential terrorist threat.

b. Friendly Forces.

Ensure this subparagraph includes-

- Mission of higher unit and a clear statement of the higher commander's concept and intent

- Additional subparagraphs that state the missions of the units to the immediate left and right and other critical units whose actions have a significant bearing on the issuing headquarters.

- Additional instructions for minimizing exposure to fratricide (actions that units must take which are not inherent in existing C^2 measures).

c. Attachments and Detachments.

- Do not repeat information already listed under task organization. Strive to have all this information in the task organization.

- If the task organization contains all or part of this information, state "See task organization."

- State when attachment or detachment is to be effective, if not for full duration of OPLAN or OPORD; e.g., 00, on commitment of the reserve, etc.

d. Assumptions (OPLAN only). Use assumptions that are logical, realistic, critical to mission success, and stated positively.

OPLAN (OPORD) ___-(Issuing HQ)
[number]

2. MISSION

Ensure mission is a clear, concise statement of WHO (1st Bde, 52d Mech, etc) does WHAT (attacks to secure objective GOLD, defends forward of PL BLUE to destroy first-echelon regiments, etc), WHEN (D-day, H-hour; 00; 0502002 Jan 19, etc), WHERE (in zone, in sector, along axis ED, etc), and WHY (to facilitate passage of exploiting force, to facilitate the corps destruction of the 2 GTA, etc). This should be a result of the essential task(s) derived during mission analysis. Do not include "be prepared" missions in the mission statement. The mission paragraph has no subparagraphs.

3. EXECUTION

INTENT: A brief paragraph, *written by the commander*, that-

- States the commander's vision of the operation
- Describes the purpose of the operation (WHY).
- Describes how the commander visualizes achieving the end state with respect to the relationship between the force as a whole, the terrain, and the enemy.
- States how the end state will facilitate future operations (sequels)
- Does not summarize the concept of operation.
- Does not describe subunit missions

a. Concept of Operation. Annex C (Operation Overlay)

This statement expands the commander's intent, particularly his vision of HOW he will conduct the operation and WHO he will assign to perform it. The concept of operations should be the COA statement from the DDMP. At a minimum, it should address close, deep, rear, security, and reserve operations describe the overall form of maneuver, and designate the main effort. The commander uses this subparagraph when he feels he must supply sufficient detail to ensure appropriate action by subordinates in the absence of additional communications or further instructions. Style is not important, but the concept statement should not exceed five or six sentences. Refer to the operation overlay if required. (See example above.) Also place the commander's intent and concept of operation statement on the overlay if the overlay does not accompany the OPORD or OPLAN.

(1) Maneuver

- Provide a clear, concise narrative of the scheme of maneuver from the beginning to the successful conclusion of the operation. Show the total synchronized battle, which consists of deep, close, and rear operations, in a sequence that promotes clarity. Address maneuver elements and major activities to include ground and aviation units.

- Designate the main effort and identify when it changes

- Address the elements of the battlefield framework if at division or corps. (At brigade and below, close, deep, and rear activities are practically indistinguishable and will usually be conducted with the same assets.)

- Ensure that this paragraph is consistent with the operation overlay, each adding to the clarity of, rather than duplicating or contradicting, the other,

- Do not duplicate information to be incorporated into unit subparagraphs or coordinating instructions.

NOTE: Additional subparagraphs of subparagraph 3a describe the contribution that selected elements of combat power make to the overall scheme of maneuver. These subparagraphs are not tasks to subordinate elements; rather, they tell the entire command how to use the elements of combat power to aid overall mission accomplishment. These subparagraphs address how that element is synchronized to support the scheme of maneuver.

(2) Fires

Clarify "concept of fire" to support overall concept, including chemical and other special purpose munitions. Establish priority of tire support for GS units and (if applicable) Air Force support. Refer to fire support annex if required. The concept of fires should address the elements of the battlefield framework. Deep fires and counterfire (which may or may not be the same) must be addressed.

Designate which maneuver unit has priority of tires (by stating "main effort"); priority use of low-density munitions; priority as to type of fires for GS units (for instance, close support, interdiction, counterfires, and so forth); preparatory fires (time and duration, as appropriate); and use of illumination, if required.

(3) Counterair operations.

Clarify overall concept of counterair operations in support of the scheme of maneuver. Include considerations of potential AF counterair support as well as the actual contribution of dedicated AD units. Establish priority of air defense for GS units and provide AD weapons status and warning status. Refer to AD annex, if required.

(4) Intelligence.

Focus intelligence collection activities of the command in terms of the scheme of maneuver. Provide priorities of collection effort to support scheme of maneuver for GS elements. Refer to appropriate annexes, if required.

(5) Electronic warfare,

Establish priority of collection and jamming as to type of targets required to support the scheme of maneuver. Refer to appropriate annexes, if required.

(6) Engineer.

Clarify effort to support overall concept. Indicate priority of support and priority of type engineer mission (mobility, countermobility, and survivability) for GS units. Refer to engineer annex, if required.

(7) Deception.

Clari@ effort to support overall concept. State WHO and WHAT would aid the deception effort to help the unit successfully accomplish the mission in accordance with the commander's intent. Also state WHERE, WHEN, HOW, and WHY support units will give aid. Indicate priority of support. Refer to deception annexes, if required.

(8) Others as needed.

b. Tasks to Maneuver Units.

- List all maneuver units (ground and aviation) that report directly to the headquarters issuing the order or plan. Use a separate subparagraph for each maneuver unit. List units in the order in which they appear in the task organization, including reserves.

- State missions or tasks and purposes to be accomplished by each maneuver element of the command, including the aviation maneuver element (if applicable), clearly and concisely.

- Do not repeat tasks otherwise shown graphically on the overlay or stated in subparagraph 3a(1) or in coordinating instructions.

- Do not list tactical tasks that affect two or more units; place them in subparagraph 3d (Coordintting Instructions).

c. Tasks to Combat Support Units.

- Use these subparagraphs only as necessary.

- When used, list CS units in subparagraphs in the same order as they appear in the task organization.

- Use CS subparagraphs to list only those specific tasks that CS units must accomplish and that are not specified or implied elsewhere.

- Include organization for combat, if not clear from task organization.

(1) Fire support.

(a) Air support.

Air support includes allocation of CAS sorties, AI mission sorties (corps), and nominations (division). Show tactical air reconnaissance (TAR) sorties here or in the intelligence annex. Also include nonstrategic nuclear weapons target nominations (corps only).

(b) Chemical support

(State priorities of reconnaissance, decontamination, and smoke.)

(c) Field artillery support.

If necessary, expand the field artillery subparagraph to cover the following:

1. General material.

This may include further subdivision or priorities (such as counterfires or interdiction)

2. Organization for combat.

Include this subparagraph only if this information is not clear in task organizations. List command and support relationships only if they are not clear in task organization. Ensure that allocation of fires supports the commander's concept. Refer to appropriate FS annexes, if used. (An FS annex is usually published at division and corps levels. At brigade and lower, include most of the FS information here. This climinatcs the need for a separate annex.)

(d) Naval gunfire support

(e) Fire support coordinating instructions.

(2) Air defense

Address the following for organic and attached AD units:

- Organization for combat, if you did not state it in the task organization

- Missions

- Priorities for protection, if not clear in the counterair operations subparagraph. Refer to ADA or Army airspace command and control (A^2C^2) annexes, or both, if used.

(3) Chemical (NBC defense)

Address functions or support roles of organic or attached chemical units if not clear in task organization, Establish priority of decontamination. Refer to chemical annex, if used.

(4) Combat engineer or engineer support.

Be sure support relationships for maneuver units agree with the scheme of maneuver. Do not repeat information that is in the task organization. When appropriate, assign priorities of work. Refer to the engineer annex, if used.

(5) Intelligence and electronic warfare

Address the function or support roles of organic or attached combat C^2W or MI units, if not clear in task organization.

(a) Intelligence

(b) Electronic warfare.

(c) Unmanned aerial vehicle

Designate any special (non-SOP) use of UAVs. Designate where you will place remote video terminals, if not designated in the SOP.

(6) Military police

(7) Others as needed.

Address only tactical tasks not in the SOP. Do not list CSS units unless they have been assigned a tactical task.

d. Coordinating Instructions

- This is always the last subparagraph in paragraph 3
- List only, instructions applicable to two or more units.
- Identify when OPLAN becomes OPORD (OPLAN only)

(1) Time or condition when a plan or order becomes effective.

(2) Commander's critical information requirements (CCIR)

(a) Priority intelligence requirements (PIR) [note 3]

(b) Essential elements of friendly information (EEFI) [note 3]

(c) Friendly forces information requirements (FFIR) [note 3]

(3) Antiterrorist actions.

(4) Air defense weapons status

(5) MOPP status.

(6) Operation exposure guide (OEG).

(7) Troop-safety criteria (corps only)

(8) Vehicle recognition signals (during daylight and times of low visibility)

(9) Any necessary descriptions of phase lines.

(10) Counterfratricide measures. (Actions in addition to C^2 symbology.)

(11) Others as needed

4. SERVICE SUPPORT

State the concept of logistic support clearly and concisely. Address service support in the areas shown below and then only as needed to clarify the service support concept. Refer to annexes, if required. Do not cover SOP actions if the SOP supports the concept of operation.
NOTE: If a civil affairs unit is assigned a CS mission, describe the assignment in paragraph 3 rather than in paragraph 4.

a. Concept of Support

This paragraph provides an overall visualization of the concept of support. Its intent is to provide non-CSS commanders and their primary staffs a visualization or word picture of how the operation will be logistically supported. If the information pertains to the entire operation, include it in this subparagraph. If it pertains to more than one unit. address it here and change it in the ensuing subparagraphs when needed. This could include--

- A brief synopsis of the support command mission

Support command headquarters and/or support area locations, including locations of the next higher logistics bases, if not clearly conveyed in the CSS overlay.

- The next higher level's support priorities and where the unit fits into those priorities.
- Priorities, if they remain the same throughout the operation.
- Units in the next higher CSS organization supporting the unit.
- Significant and/or unusual CSS issues that might impact the overall operation.
- Any significant risks.

(1) Support before operations.

- Priorities.

-By unit.

-For personnel replacements.

-Maintenance and/or recovery and evacuation priorities (by unit and equipment type).

-Route use.

- Manning.
- Sustaining.
- Arming.
- Fueling.
- Fixing.
- Moving. (Priorities should be by unit and commodity.)

(2) Support during operations.

If there are any differences or changes, state them in this paragraph. (The during period of the concept of support will also be phased if the concept of the operation is phased.)

- Priorities.

  -By unit.

  -For personnel replacements.

  -Maintenance and/or recovery and evacuation priorities (by unit and equipment type).

  -Route use.

- Manning.
- Sustaining.
- Arming.
- Fueling.
- Fixing.
- Moving. (Priorities should be by unit and commodity.)

  Critical decision points.

(3) Support after operations.

If there are any differences or changes from the before and during periods, the writer states them here.

- Priorities.

  -By unit.

  -For personnel replacements.

  -Maintenance and/or recovery and evacuation priorities (by unit and equipment type).

- Manning.
- Sustaining.
- Arming.
- Fueling

- Fixing
- Moving. (Priorities should be by unit and commodity.)
- Reconstitution.
- Weapons system replacement operations (WSRO)
- Preparing for future operations.

b. Materiel and services

c. Medical evacuation and hospitalization

d. Personnel

e. Civil-military cooperation

f. Miscellaneous

5 COMMAND AND SIGNAL

a. Command

State the map coordinates for the TAC, main, rear, and alternate CP locations and at least one future location for each CP.

b. Signal

List signal instructions. Refer to signal annex, if required.

ACKNOWLEDGE: Include instructions for the acknowledgment of the plan or order by addressees. if required. The word acknowledge will suffice, or you may refer to the message reference number. Acknowledgement of a plan or order means that it has been received and understood

NAME [Commander's last name]
RANK [Commander's rank]

OFFICIAL.
(Authentication) Use only when applicable. Implements STANAG 2014.

OPLAN (OPO`RD)___ -(Issuing HQ)
[number]

ANNEXES:
A-Task Organization [note 4]
B-Intelligencc
- Appendix I-lntelligence Estimate
  - Tab l-Situation Overlay
- Appendix 2-Reconnaissance and Surveillance
- Appendix 3-Signals lntelligence
- Appendix 4-Multidisciplined Counterintelligence Estimate

C-Operation Overlay
D-Engineer
- Appendix 1 -Engineer Overlay

E-Army Aviation
F-Fire Support (FS)
- Appendix I-Air Support (includes nonstrategic nuclear targeting information) (corps only)
- Appendix 2-Chemical Support
- Appendix 3-Field Artillery Support
- Appendix 4-Naval Gunfire Support

G-Air Defense (not specitied in STANAG 2014)
H-Army Airspace Command and Control (A^2C^2)
l-Electronic Warfare (EW)
- Appendix 1-Enemy Electronic Order of Battle Overlay
- Appendix 2-Electronic Combat Target List
- Appendix 3-Schedule of Jamming
- Appendix 4-Overlay of ES/EA Grid Zones
- Appendix 5-Electronic Warfare Contingency Augmentation
- Appendix 6-Restricted Frequency List

J-Signal
- Appendix 1-Radio Net Diagram (FM)
- Appendix 2-Radio Net Diagram (RATT)
- Appendix 3-Radio Net Diagram (Multichannel)
- Appendix 4-Telephone Traffic Diagram
- Appendix 5-Teletypewriter Traffic Diagram
- Appendix 6-Line Route Map
- Appendix 7-Messenger Routes

K-OPSEC
L-Deception
- Appendix 1-Notional Order of Battle
- Appendix 2-Deception Overlay
- Appendix 3-Deception Implementation Schedule

M-Psychological Operations (PSYOP)
N-Nuclear. Biological. and Chemical (NBC) Operations
O-Provost Marshal (PM)

OPLAN (OPORD) - (Issuing HQ)
[number]

P-Rear Operations
Q-Service Support
Appendix 1-Service Support Overlay
Appendix 2-Traffic Circulation and Control
Appendix 3-Personnel
Appendix 4-Legal
Appendix 5-Religious Support
R-Highway Regulation (Movement in NATO)
Appendix 1-Traffic Circulation (Overlay)
Appendix 2-Road Movement Table
S-Civilian Affairs (CA)

DISTRIBUTION: (note 5)

NOTES: 1. This statement is applicable only to an order. The phrases “No change from oral orders” or “No change from oral orders except paragraph -" appear here if the commander issues oral orders concerning this operation. In the absence or oral orders, leave this space blank.

2. Number plans and orders with Arabic numbers beginning on the first page. Use alphabetical letters and Arabic numerals alternately, separated by hyphens, to identify annexes, appendixes, tabs, enclosures, and additions, in order. For example, the designation of the third page of enclosure 7 to tab B to appendix 2 to annex A is A-2-B-7-3. Center page numbers approximately 1 to 1½ inches from the bottom of the page.

3. Only listed here if not contained in Annex B (Intelligence) to OPORD.

4. Formats for annex A are in subparagraphs 5-3 *d* and 5-3 *e* of this book. Formats for other annexes are in paragraph 6-6.

5. Furnish distribution copies either for action or for information. List in detail those who are to receive the plan or order. If necessary, also refer to an annex containing the distribution list or to a standard distribution list (usually in the SOP). When referring to a standard distribution list, also show distribution to reinforcing, supporting, and adjacent units, since that list does not normally include these units. When distribution includes a unit from another nation or from a NATO command, cite the distribution list in full.

b. OPLAN (OPORD) format for use by a CSS unit.

(Classification)

(Change from oral orders, if any) [note 1]

Copy _ of _ copies
Issuing headquarters
Place of issue (coordinates)
Date-time group of signature
Message reference number

OPERATION PLAN (ORDER) _ (code name)
[number]

References:

Reference any maps, charts, or documents from which information has been drawn. When using a map, include the map series number (and country or geographic area, if required), sheet number (and name, if required), edition, and scale (if required) according to the requirements of STANAG 2029.

Time Zone Used Throughout the Plan (Order) :

State the time zone applicable to the operation.

Task Organization:

Describe the allocation of forces to support the commander's concept. If the task organization is long and complex, put it in Annex A (Task Organization). List major subordinate control headquarters in the correct sequence (subparagraph 5-3 *e* of this book). Depict task organization by phase, if appropriate.

- Identify relationships other than attached by placing a colon (:) after the unit and then using the apprioriate term (OPCON, DS, GS, GSR, R, etc).

- For a unit attached to another unit, list the time or times that attachment is effective if different from the time the order or plan is effective. Place the time in parentheses beside the unit. Attachments and detachments can also be listed in paragraph 1c instead of here. They should not be listed in both places.

1. SITUATION

There must be three subparagraphs for an OPORD and four for an OPLAN.

a. Enemy Forces. Annex B (Intelligence).

1 [note 2]
(Classification)

96AUG-ST10156B

Use an intelligence annex only if the amount of information is too long to include in the body of the order. This subparagraph contains information describing the enemy's most probable course of action within the CSS unit's area of responsibility. Express this information in the same terms (i.e., enemy divisions, brigades, battalions, etc.) as the higher maneuver headquarters with jurisdiction over the CSS unit's entire area of responsibility. When possible, provide a sketch of the enemy course of action in lieu of verbiage: (Appendix 1 (Situation overlay) to Annex B (Intelligence)). In addition to describing the enemy's most probable course of action, describe all enemy capabilities which can influence the CSS mission (i.e., enemy forces that can operate in rear areas, NBC capabilities, artillery ranges, deep strike capabilities, expected enemy impact on customer units). When appropriate, address potential terrorist threats.

b. Friendly Forces

This subparagraph includes the following:

- The mission of the higher maneuver headquarters with jurisdiction over the CSS unit's entire area of responsibility, that higher commander's intent, and that higher maneuver headquarter's concept of the operation, If appropriate, use a sketch to portray the higher commander's scheme of maneuver.

- The mission of the immediate higher headquarters and the higher commander's intent, if this headquarters is a CSS unit.

- Additional subparagraphs which state the missions of units whose actions have a significant bearing on the CSS unit issuing the OPORD or OPLAN. These units include those providing general support, direct support, and reinforcing direct support (in order) to the CSS unit, those combat units the CSS unit is itself supporting, and those units providing security against Level II and III threats.

- As appropriate, additional instructions for minimizing exposure to fratricide which are not inherent in existing C^2 measures.

C. Attachments and Detachments.

Do not repeat information already listed under the task organization paragraph. To reduce confusion, strive to put all information in the task organization paragraph or in annex A; however, when the information is not in the task organization paragraph, list units which are attached to or detached from the headquarters which issues the order and the times that the attachments or detachments are in effect in annex A or in this subparagraph. If such units are listed in the task organization paragraph or in annex A, write "See task organization" or "See Annex A (Task Organization)." State when the attachment or detachment is effective if different from when the OPLAN or OPORD is effective. Use the term "remains attached" when units will be or have been attached for some time.

d. Assumptions.

Assumptions are included in OPLANs only. Assumptions must be necessary and valid (i.e., logical, realistic, critical to mission success). State assumptions positively.

2. MISSION

Clearly and concisely state the unit mission. Tell WHO does WHAT, WHERE, WHEN, and WHY. The mission should result naturally from the determination of essential tasks during the mission analysis. There are no subparagraphs.

3. EXECUTION

INTENT: The intent is the commander's stated vision. It defines the PURPOSE of the CSS operation; the END STATE with respect to location on the battlefield, and the relationship between the issuing headquarters and both supported units and supporting units; and a brief description of HOW the unit will achieve the end state.

a. Concept of CSS operations. Annex C (Operations Overlay).

The concept of CSS operations statement should articulate the course of action developed during the deliberate decision making process. The focus is on how the unit will prepare and position itself in order to provide continuous support to its customers. The concept of CSS operations statement is intended to expand the commander's intent, particularly his or her vision of HOW the operation will be conducted and WHO will be assigned the essential tasks necessary to achieve the end state. The commander uses the concept of CSS operations statement when he or she feels sufficient detail must be provided to ensure appropriate action by subordinates in the absence of additional communications or further instructions.

Style is not important, but the concept of CSS operation statement should be brief. Refer to the operations overlay, if required.

If the operation overlay is the only annex referenced in the concept of CSS operations statement, show it after "a Concept of CSS Operations" [note 3]. If more than one annex is referenced in the concept of CSS operations statement, reference all annexes in the appropriate place within the body of the subparagraph.

After the concept of CSS operations statement, include any subparagraphs needed to clarify the concept and ensure synchronization. Phase the operation to match the phasing of the operations being supported. If phased, ensure subsequent subparagraphs clearly outline what is to happen during each phase.

Do not discuss internal support considerations in this subparagraph. Internal support matters are addressed in paragraph 4, Service Support.

b. Tasks to Subordinate Units

List all subordinate units that report directly to the headquarters issuing the OPORD or OPLAN in the same sequence as in the task organization. Use a separate subparagraph for each subordinate unit. Clearly and concisely state the missions or tasks each unit is to accomplish. Only state tasks necessary for comprehension, clarity, and emphasis. Place tasks that affect two or more units in the support operations or coordinating instructions subparagraphs.

C. Support Operations. Annex D (Support Operations).

This subparagraph provides subordinate units with guidance necessary for them to execute their customer support missions. It does not address internal support matters which are covered in the service support paragraph.

If support operations guidance is long and complex, put it in Annex D (Support Operations) with appropriate appendixes and reference the annex as shown above. Otherwise, provide information as necessary in the appropriate subparagraphs. Do not include subparagraphs which do not apply to the capabilities of subordinate units. If the operation is phased, guidance should be clearly articulate what the phases are and how support provided changes from one phase to the next.

(1) Areas of responsibility. Annex C (Operations Overlay)

List the boundaries for each subordinate unit's area of responsibility or refer them to the operations overlay as shown above.

(2) Priorities for support.

Indicate which customer units have priority for support based on the guidance of the higher maneuver headquarters which has jurisdiction over all of the units supported.

(3) Unit movements.

Provide guidance on when subordinate units are to move and where they are to move to. Do not repeat instructions given in the tasks to subordinate units subparagraph.

(4) Supply. [if applicable]

This subparagraph should in turn have subparagraphs on each class of supply (less class VIII), maps, water, special supplies, salvage, and captured enemy materiel. Subparagraphs should address the designation and location of units providing GS supply and the frequency of delivery, operating hours, levels of supply, controlled items, methods and schedules of distribution, and any other pertinent information which

supply units require. Include information or instructions involving two or more classes of supply under one subparagraph.

(5) Transportation. [if applicable]

This subparagraph should address the designation and location of units providing reinforcing direct support, operating hours, controlled routes, priorities for movement and allocation, traffic control and regulation measures from both the CSS command headquarters and the movement control headquarters, restrictions, and any other pertinent information which transportation units require.

(6) Field services. [if applicable]

This subparagraph should in turn have subparagraphs on mortuary affairs; shower, laundry, and clothing repair; air drop; water production; and decontamination, as appropriate. Subparagraphs should address the designation and location of units providing reinforcing direct support; operating hours; suspension and resumption of nonessential field services; mortuary affairs program in effect; procedures for evacuating remains to include the designation and location of units operating higher-echelon collection points; procedures for emergency, tempory, and mass burials; procedures for handling of contaminated remains; and any other pertinent information which field service units require.

(7) Maintenance. [if applicable]

This subparagraph should in turn have subparagraphs on ground, aviation, and missile maintenance as appropriate; medical maintenance is discussed in the medical subparagraph. Subparagraphs should address the designation and location of units providing reinforcing direct support, priorities, operating hours, location of collection points, maintenance time lines, evacuation procedures, and any other pertinent information which maintenance units require.

(8) Medical. [if applicable]

This subparagraph should in turn have subparagraphs on patient evacuation and medical regulation, hospitalization, health service logistics, medical laboratory services, blood management, dental services, veterinary services, preventive medicine services, combat stress control, and area medical support. Subparagraphs should address the designation and location of units providing higher echelon supply and maintenance support and the next higher level of medical care; operating hours; special requirements regarding NBC-contaminated patients and EPWs; and any other pertinent information which medical units require.

(9) Personnel Services. [if applicable]

This subparagraph should in turn have subparagraphs on personnel readiness management, casualty

operations management replacement management, personnel information management, personnel accounting and strength reportion, essential personnel services, and postal operations management. Subparagraphs should address the designation and location of higher echelon units providing personnel service support, operating hours, information on replacement availability and priorities, required reports, guidance on military and civilian personnel management, suspension and resumption of replacement operations, and any other pertinent information which personnel units require.

(10) Finance services. [if applicable]

This subparagraph should address the designation and location of units providing higher-echelon finance services support, operating hours, finance and accounting guidance, currency and credit controls, provisions for handling EPW pay and allowances, cash reward programs, battlefield requisitions, casual payments, travel payments, commercial accounts, vendor services, funding support, entitlements and special pay, and any other pertinent information which finance units require.

d. Coordinating Instructions.

This is always the last subparagraph in the EXECUTION paragraph. List only instructions applicable to two or more units. Include information directly in the subparagraphs indicated below or refer the reader to an annex.

(1) Time or condition when an OPLAN or OPORD becomes effective.

(2) Commander's critical information requirements (CCIR). [note 4]

(a) Priority intelligence requirements (PIR).

(b) Essential elements of friendly information (EEFI).

(c) Friendly forces information requirements (FFIR).

(3) Antiterrorist actions.

(4) Mission-oriented protective posture (MOPP).

(5) Operation exposure guidance (OEG).

(6) Vehicle recognition signals.

(7) Any necessary descriution of phases lines.

(8) Others as needed.

OPLAN (OPORD)___-(Issuing HQ)
[number]

4. SERVICE SUPPORT

This paragraph addresses internal support matters and should have a different focus than the support operations subparagraph which covers support to customer units,

At least two subparagraphs are required. Paragraph a is always "Concept of Support." Paragraph b may refer to Annex E (Service Support) if the information that needs to be presented is long or complex. If an annex is not required, provide information in separate subparagraphs on materiel and services, medical evacuation and hospitalization, personnel, civil-military cooperation, and miscellaneous.

a. Concept of Support

This subparagraph provides an overall visualization of how subordinate units are supported during the entire operation. It should include information that remains constant for the duration of the operation, Any significant or unusual CSS issues that might impact the overall operation should be addressed, as well as significant risks. Additionally, units that provide direct support and reinforcing direct support, whether internal or external, should be identified along with their locations.

(1) Support before operations

State when the "before operations" segment begins and when it ends. This subparagraph describes support-related actions and requirements which are pertinent before the operation begins. Indicate what the priority of logistics effort is before operations. Discuss priorities (units. replacements, maintenance and recovery, and route use). Also address significant or unusual CSS issues in each of the tactical logistics functions that will impact on supported units before the operation

(2) Support during operations.

State when "during operations" segment begins and when it ends. This subparagraph describes support-related actions and requirements which are pertinent during the operation, Only address changes from the "before" subparagraph. Indicate what the priority of logistics effort is during operations, Discuss priorities (units, replacements, maintenance and recovery, and route use). Also address significant or unusual CSS issues in each of the tactical logistics functions that will impact on supported units during the operation.

If the concept of CSS operations subparagraph is phased, the "during" subparagraph of the concept of support should also be phased.

(3) Support after operations

State when "after operations" segment begins. This subparagraph describes support related actions and requirements which are pertinent after the operation is over. Only address changes from the "during" subparagraph. Indicate what the priority of logistics effort is after operations. Discuss priorities (units,

replacements, maintenance and recovery, and route use). Also address significant or unusual CSS issues in each of the tactical logistics functions that will impact on supported units after the operation. Reconstitution and preparation for future operations are normally mentioned in this subparagraph.

b. Materiel and services.

(1) Supply.

(2) Transportation.

(3) Services

(a) Construction.

(b) Mortuary affairs

(c) Field services.

(d) Other services.

(4) Labor.

(5) Maintenance.

C. Medical evacuation and hospitalization.

(1) Evacuation.

(2) Hospitalization.

(3) Health services.

d. Personnel.

(1) Information and instructions on personnel matters.

(2) Maintenance of unit strength.

(a) Strength reports

(b) Replacements.

(3) Personnel management.

(a) Military personnel

(b) Civilian personnel.

(c) Enemy prisoners of war and civilian internees or detainees.

(4) Development and maintenance of morale.

(5) Maintenance of law, order, and discipline.

(6) Miscellaneous.

e. Civil-Military Cooperation.

f. Miscellaneous.

(1) Boundaries.

(2) Protection.

(3) Special reports.

(4) Other CSS matters.

5. COMMAND AND SIGNAL

a. Command.

State the map coordinates for the HQ CP location and the projected future location.

b. Signal.

List signal instructions. Refer to a signal annex, if required.

ACKNOWLEDGE:

(Include a statement directing the recipient to acknowledge receipt and understanding.)

NAME [Commander's last name]
RANK [Commander's rank]

OPLAN (OPORD) __-(Issuing HQ)
[number]

OFFICIAL:
(Authentication) (note 5)

ANNEXES
- A-Task Organization
  - Appendix 1-Phase I Task Organization
  - Appendix 2-Phase II Task Organization
  - Appendix - (as required)
- B-Intelligence
  - Appendix 1-Situation Overlay
  - Appendix 2-Intelligence Estimate
  - Appendix- (as required)
- C-Operations Overlay
- D-Support Operations
  - Appendix 1-Movements
  - Appendix 2-Supply
  - Appendix 3-Transportation
  - Appendix 4-Field Services
  - Appendix 5-Maintenance
  - Appendix 6-Medical
  - Appendix 7-Personnel Services
  - Appendix g-Finance Services
  - Appendix-(as required)
- E-Service Support
  - Appendix 1 Materiel and Services
  - Appendix 2 Medical Evacuation and Hospitalization
  - Appendix 3 Personnel
  - Appendix 4 Civil-Military Cooperation
  - Appendix-(as required)
- F-Signal Operations
- G-Operations Security
- H-Deception
- I-Nuclear. Biological, and Chemical Operations
- J-Rear Operations
- K-Civilian Affairs
- (other annexes as required)

DISTRIBUTION:

NOTES: 1. This statement applies only to an OPORD. The phrases “No change from oral orders” or “NO change from oral orders except paragraph _" appear here if the commander issues oral orders concerning the operation. Leave this space blank in the absence of oral orders.

2. Number plans and orders with Arabic numbers beginning on the first page. Use alphabetical letters and Arabic numerals alternately, separated by hyphens, to identify annexes, appendixes, tabs, enclosures, and additions, in order. For example, the designation of the third page of enclosure 7 to tab B to appendix 2 to annex A is A-2-B-7-3. Center page numbers approximately 1 to 1½ inches from the bottom of the page.

3. Place the commander’s intent and concept of CSS operation statement on the overlay if the overlay does not accompany the OPORD or OPLAN.

4. Only listed here if not contained in the intelligence annex.

5. Use only when applicable. Implements STANAG 2014.

c. Service support plan or order format.

(Classification)

(Change from oral orders, if any) [note 1]

Copy _ of _ copies
Issuing headquarters
Place of issue (may be in code)
Date-time group of signature
(must include time zone suffix) [note 2]
Message reference no.

SERVICE SUPPORT PLAN (ORDER)____(code name)
[number]

The type of service support plan or order indicates whether it came from the Navy, Army, Air Force, or combined or joint forces. (Within a single service, the SSORD is normally omitted.) Include a code title, when required.

Related operation plan (order)___ [when applicable].
[number]

References: Maps, charts, and other relevant documents.

When using a map, include the map series number (and country or geographic area, if required), sheet number (and name, if required), edition, and scale (if required) according to requirements in STANAG 2029.

Time Zone Used Throughout the Plan (Order):

State the time zone applicable to the operation.

Composition and Location of Service Support Units:

List the number and coordinates of service support units here, in the appropriate paragraph of the order, or in a trace or overlay. If you do not list units here, omit this heading.

1. SITUATION

This paragraph is a general statement of service support factors affecting support of the operation, Include any information (from paragraph 1 of the related OPLAN or OPORD on the general overall situation) essential to understanding the current situation as it influences combat service support.

OPLAN (OPORD) __-(Issuing HQ)
[number]

a. Enemy forces.

List information about the composition, disposition, location, movements, estimated strengths, and identifications of enemy forces. (Refer to an OPORD or to the movements, estimated strengths, and identifications of enemy forces. (Refer to an OPORD or to the intelligence annex to an OPORD, if it has been published or is to be published.) List enemy capabilities which can influence the CSS mission.

b. Friendly forces,

List pertinent information on own forces (other than those which a referenced OPORD covers or which subsequent paragraphs of this order include, that may directly influence the CSS mission.

c. Attachments and detachments.

d. Assumptions (OPLAN only).

2. MISSION

State the CSS task and its purpose clearly and concisely.

3. GENERAL

Outline the general plan for CSS and any orders which succeeding paragraphs do not suitably cover (for example, location of the division support area, location of coordinating agencies, general instructions for movement of installations).

4. MATERIEL AND SERVICES

Include information about supply (normal daily requirements), transportation, maintenance, services, and allocation of labor for CSS purposes.

a. Supply

This paragraph should contain a subparagraph for each class of supply, maps, water, special supplies, excess materiel, salvage materiel, and captured enemy materiel. When applicable, each subparagraph contains the location of the installations which handle supplies and materiel for supported units, the time of opening or closing, operating units, supported units, levels of supply, methods and schedules of distribution, instructions for submission of routine reports concerning the particular supplies listed, and any other pertinent instructions or information which supported units will need. When entries are limited, include instruction or information for two or more classes under one subparagraph; however, do not sacrifice clarity. For class V, include the designation and location of the approving agency for ammunition requisitions and CSR, as appropriate.

b. Transportation.

Include location of terminals and installations (rail stations, airfields, ports, and beaches): operating units; schedules (march tables, timetables, and rail movement tables); area responsibilities of the transportation movement officers and highway regulating teams; traffic control and regulation measures, such as regulations, restrictions, allocation priorities, and regulating and control points; and designation of the MSR. Items listed in this subparagraph are not necessarily limited to transportation operations and may include ocean, inland waterway, coastal, highway, air, rail, and miscellaneous activities.

c. Services.

Include information or instructions for support units that prescribe the type of service available, designation and location of the unit or installation providing the service, assignments to support units, and schedules for service, if applicable. Include any service missions for service units not covered in other orders (for example, priority of effort of engineers). Under each subparagraph, list pertinent service installations stating location, operating units, and assignments to supported units. In addition, assign any special missions that are not covered in other orders to service units in these subparagraphs.

(1) Construction.

(2) Mortuary Affairs.

Location of collection points, evacuation procedures, and handling of personal effects. Outline procedures for emergency and temporary burials, mass burials, or contaminated remains, if the unit SOP does not.

(3) Field services.

Include such services as laundry, bath, clothing renovation and exchange, and bakery.

(4) Health services.

Includes medical, dental, veterinary (including laboratory service), optometry, whole-blood control, preventive medicine, and health and sanitation services.

(5) Installation service.

List real estate, repair and utilities, fire protectron, sewage and trash disposal, and water supply services.

(6) Other.

Include aviation, EOD, photography, and procurement services.

d. Labor.

Include policies on using civilian and EPW's and civilian internees or detainees in labor units, restrictions on using civilian and enemy prisoners of war as such, allocation and priorities of available labor, and designation and location of labor units available.

e. Maintenance.

Include priority of maintenance, location of facilities, collecting points, maintenance time lines, and evacuation procedures.

5. MEDICAL EVACUATION AND HOSPITALIZATION

This paragraph contains information and instructions for supported units prescribing the plan for collection, triage, medical treatment, medical evacuation, and hospitalization of sick. injured, and wounded soldiers, including EPWs.

a. Evacuation

This subparagraph states ambulance exchange points (AXPs) and establishment of ambulance shuttles, routes, means, and schedules (if any) of evacuation. Include evacuation and en route treatment policies for the use of nonmedical transportation assets, when applicable. Include specific policies for evacuation by air or ground and evacuation of NBC-contaminated patients, Include information about medical evacuation request procedures and channels (if applicable or different from the SOP). Include evacuation or holding policies.

b. Hospitalization

List all appropriate treatment facilities (for example, dispensaries, aid stations, clearing stations, hospitals) belonging to or supporting organizations. Also discuss the location and operational time of supporting hospitals (MASH and CSH), medical regulating matters, and evacuation policy. Discuss the establishment of patient decontamination facilities, if applicable.

c. Other services

Include pertinent information on any other health services matters (for example, dental, preventive medicine, health service logistics, combat stress control, veterinary). Include unit locations, support information, policies, requirements for nonmedical augmentation to accomplish patient decontamination, support requirements for providing nonmedical guards for EPWs evacuated within the HSS channels, and any other information, as appropriate.

6. PERSONNEL

a. Information and instructions on personnel matters. This paragraph contains all necessary information and instructions on personnel matters, including foreign civilian labor used in direct military support functions, List any information under each of the following subparagraphs, when applicable.

(1) Installation, location, and time of opening or closing.

(2) Operating units.

(3) The units or areas served.

(4) Rest, leave, and rotation criteria and unit quotas.

(5) Unit responsibility for movement or administration of personnel.

(6) Reports required.

(7) Requisitions or plans concerning personnel activities.

(8) Necessary references to previous order, instructions, or SOP

b. Maintenance of unit strength.

(1) Strength reports.

Include instructions for submission of data required to keep the commander informed on the status of strength. Include requirements for routine reports and special reports following a mass-destruction attack or a natural disaster.

(2) Replacements.

Include a statement establishing the validity of existing personnel requisitions, instructions for submission of requisitions, instructions for processing and moving replacements, the location of replacement units and the units each will support, and the type and location of unit replacements under control of the issuing headquarters.

c. Personnel management.

(1) Military personnel

Include any information or instructions concerning classification, assignment, promotion, transfer, reclassification, reduction, elimination, retirement, separation, training, rotation, and personnel

economies.

(2) Civilian personnel

List sources of civilian labor; locations of civilian personnel offices or other labor administration centers and labor pools; procurement policies and procedures; restrictions on use of civilian labor; administrative and control procedures; pay schedules, allowances, and CSS to be provided; and responsibilities of subordinate commanders for administration. Refer to appropriate SOP or provide specific pay scales and other conditions of employment in an annex.

(3) Enemy, prisoners of war and civilian internees or detainees.

Include instructions concerning collecting, safeguarding, processing, evacuating, using, treating, and disciplining EPWs and civilian internees or detainees and all other personnel arrested or captured but not immediately identifiable as EPWs. Include the location of EPWs and civilian internee or detainee facilities.

d. Development and maintenance of morale.

Include information or instructions concerning leaves, rest and recreation facilities, decorations and awards, postal and finance services, chaplain actives and religious coverage, personal hygiene, morale support actives, post exchanges. and legal assistance.

e. Maintenance of discipline, law, and order.

Include information and instructions concerning troop conduct and appearance. Include the control and disposition of stragglers, locations of straggler-collecting points, and special instructions for straggler-control augmentation if mass-destruction attacks occur. Include instructions for administering military justice. Include any information or instructions concerning relations between military and civilian personnel, such as fraternization? black marketing, selling government property, and respecting local laws.

f. Headquarters management.

Include instructions concerning movement, internal arrangement, organization, operation of headquarters, and allocation of shelter in the headquarters area for troops and headquarters personnel.

g. Miscellaneous

Include any personnel administrative matters not specifically assigned to another coordinating staff section or included in the preceding subparagraphs.

7. CIVIL-MILITARY COOPERATION

This paragraph covers such civil-military operations (CMO) activities as the allocation of civil affairs units, control of refugees, and feeding and treatment of local civilians.

OPLAN (OPORD) ___-(Issuing HQ)
[number]

8. MISCELLANEOUS

a. Boundaries.

Include locations of the rear boundary and any other boundary needed for CSS purposes

b. Protection

Include measures established for the protection of CSS units or installations. Usually, this consists of announcing which tactical units are to provide protection, which CSS units or installations will receive protection, and any conditioning factors to that protection. This announcement provides information for CSS units; it is not an order to the tactical unit involved. Include pertinent instructions from the rear operations plan or reference to an annex or both.

c. Special reports.

Include those reports requiring special emphasis which are required but are not included in previous paragraphs or reports.

d. Other CSS matters

Include information or instructions not included in any previous paragraph.

e. Statement.

Include the time or the conditions under which the plan is to be placed in effect.

9 COMMAND AND SIGNAL

This paragraph contains the headquarters location and movements, liaison arrangements, recognition and identification instructions, and general rules concerning the use of communications and other electronic equipment, if necessary. Use an annex when appropriate.

ACKNOWLEDGE:

NAME [Commander's last name]
RANK [Commander's rank] [note 3]

OFFICIAL:
(Authentication) [note 4]
ANNEXES: [note 5]

OPLAN (OPORD) -(Issuing HQ)
[number]

DISTRIBUTION:

NOTES:

1. This statement is applicable only to an order. The phrase "No change from oral orders" or "No change from oral orders except paragraph _" appear here if the commander issues oral orders concerning this operation. In the absence of oral orders, leave this space blank.

2. This is the time the commander actually signs the plan or order and is its effective time unless paragraph 8 states otherwise.

3. The commander's last name and his rank appear on all copies. The commander or his authorized representative signs the original copy. If the CofS (XO) signs the original, add the phrase "For the commander." This signed copy is the historical copy and remains in headquarters files.

4. If the commander or his authorized representative signs a master copy, the use of which permits automatic reproduction of the document with his signature thereon, no further authentication is required. If this signature is not reproduced, authentication by the preparing staff officer is required on all subsequent copies and only the last name and the rank of the commander appear in the signature block.

5. List annexes by letter and title in the sequence in which they appear within the order.

d. Road movement order format.

(Classification)

(Change from oral orders, if any)

Copy___of___copies
Issuing headquarters
Place of issue (may be in code)
Date-time group of signature
Message reference no.

ROAD MOVEMENT ORDER___
References: Maps, tables, and other relevant documents.
Time Zone Used Throughout the Order:
Task Organization:
1. SITUATION
   a. Enemy Forces.
   b. Friendly Forces.
   c. Attachments and Detachments.
2. MISSION
3. EXECUTION
   a. Concept of Movement.
   b. Tasks to Subordinate Units.
   c. Detailed Timings.
   d. Coordinating Instructions.
      (1) Order of march.
      (2) Routes.
      (3) Density.
      (4) Speed.
      (5) Method of movement.
      (6) Defense on move.
      (7) Start, release, or other critical points.
      (8) Convoy control.
      (9) Harbor areas [note].
      (10) Instructions for halts.
      (11) Lighting.
      (12) Air support.
4. SERVICE SUPPORT
   a. Traffic Control (MP).
   b. Recovery.
   c. Medical.
   d. POL.
   e. Water.

1
(Classification)

96AUG-ST10156D

(Classification)

OPLAN (OPORD)___-(Issuing HQ)
[number]

5. COMMAND AND SIGNAL
   a. Command.
      (1) Location of commander.
      (2) Locations of key individuals or particular vehicles.

b. Signal.

ACKNOWLEDGE

NAME [Commander's last name]
RANK [Commander's rank]

OFFICIAL:
ANNEXES:
DISTRIBUTION:

NOTE: A harbor area is an area designated for normal halts, for traffic control, and for avoiding congestion in emergencies. Example applications include holding vehicles at both ends of a crossing or defile; effecting changes of density, especially at first or last light; using them as spillover areas if enemy air attack (or their results) cause serious delays; using them as areas where columns can rest and carry out necessary maintenance and decontamination; or allowing elements to change position in column, if there is a change in priorities.

(Classification)

96AUG-ST10156D

Road movement order format.

e. Warning order format.

(Classification)

(Change from oral orders, if any)

Copy _ of _ copies
Issuing headquarters
Place of issue (may be in code)
Date-time group of signature
Message reference no.

WARNING ORDER
References:
1. SITUATION
   a. Enemy Forces.
   b. Friendly Forces.
      (1) Mission.
      (2) Commander's Intent.
   c. Attachments and Detachments.
2. MISSION
3. EXECUTION
   INTENT (when available).
   a. Concept of Operation (when available). Assemble area locations (if applicable, when available).
   b. Tasks to Maneuver Units (when available).
      (1) Reconnaissance.
      (2) Counterreconaissance.
   c. Tasks to Combat Support Units (when available).
   d. Coordinating Instructions.
      (1) Earliest movement time and degree of notice.
      (2) Battle staff meeting (attendees, location, and time) (when applicable).
4. SERVICE SUPPORT
   a. Special Equipment.
   b. Transportation.
5. COMMAND AND SIGNAL

ACKNOWLEDGE:

NAME [Commander's last name]
RANK [Commander's rank]

OFFICIAL:
ANNEXES:
DISTRIBUTION:

1
(Classification)

96AUG-10156EF

f . Fragmentary order (FRAGO) format.

(Classification)

(Change from oral orders, if any)

Copy _ of _ copies
Issuing headquarters
Place of issue (may be in code)
Date-time group of signature
Message reference no.

FRAGO
References:
1. SITUATION
   a. Enemy Forces.
   b. Friendly Forces.
   c. Attachments and Detachments.
2. MISSION
3. EXECUTION
   INTENT:
   a. Concept of Operation.
   b. Tasks to Maneuver Units.
   c. Tasks to Combat Support Units.
   d. Coordinating Instructions.
4. SERVICE SUPPORT
5. COMMAND AND SIGNAL

ACKNOWLEDGE:

NAME [Commander's last name]
RANK [Commander's rank]

OFFICIAL:
ANNEXES:
DISTRIBUTION:

1
(Classification)

96AUG-10156EF

6-6. ANNEXES

Annexes provide details not readily incorporated into the basic order and help keep the order's basic text short They are referenced in the body of the order and listed at the end of the order. An annex may be a written text, a trace. an overlay, an overprinted map, a sketch, a plan, a graph, or a table. The staff officer who has responsibility for the activity or service that the annex covers prepares the annex. Annexes do not include matters which SOPs cover. Where appropriate, annexes should refer to the SOP.

Annexes also help the author select the specific information he wants to distribute. They may be issued with the order or separately. Annexes, appendixes, tabs, and enclosures issued with the order do not require an authenticating signature; those issued separately do.

Standardization Agreement 2014 (QSTAG 243) is the basis for Army orders and annex formats. It specifies the formats for orders.

Appendixes, tab, and enclosures contain any additions necessary for expanding an annex. The order of page numbers follows the way the piece is cited, as in the following examples:

Annex J (Signal) to Operation Order 6-52d Mech Div	J-1
Appendix 5 (Messenger Service) to Annex J (Signal) to Operation Order 6-52d Mech Div	J-5-1
Tab A (Ground Messenger Service) to Appendix 5 (Messenger Service) to Annex J (Signal) to Operation Order 6-52d Mech Div	J-5-A-1
Enclosure 1 (Route Map) to Tab A (Ground Messenger Service) to Appendix 5 (Messenger Service) to Annex J (Signal) to Operation Order 6-52d Mech Div	J-5-A-1-1

NOTE: Formats and organization for Annex A (Task Organization), are in chapter 5, subparagraphs 5-3 *d* and 5-3 *e.* of this book.

a. Format for Annex B (Intelligence).

(Classification)

Copy _ of _ topics
Issuing headquarters
Place of issue (may be in code)
Date-time group of signature
Message reference no.

ANNEX B (INTELLIGENCE) TO OPERATION ORDER _

References: Maps, charts, and other relevant documents.
Time Zone Used Throughout the Order:

1. SUMMARY OF ENEMY SITUATION

Include information about enemy forces essential to implementing the OPLAN. When more detail makes it appropriate, use a brief summary and refer to the appropriate intelligence document or appendix to the annex. Do not refer to documents which the annex does not include when they arc not available to all recipients.

2. PRIORITY INTELLIGENCE REQUIREMENTS (PIR)

List each PIR in a separate subparagraph. If PIRs have an order of priority, list them in order and so state. In a final subparagraph, list any other intelligence requirements. If you do not prepare or separately distribute an intelligence annex from the basic order, list the EEFI in the coordinating instructions subparagraph of the OPORD.

3. INTELLIGENCE ACQUISITION TASKS

a. Orders to Subordinate and Attached Units. List by unit (in a separate, numbered subparagraph) detailed instructions for reports for the issuing headquarters. List units in the same order as in the OPORD.

b. Requests to Higher, Adjacent, and Cooperating Units. List requests for information from units not organic or attached in a separate, numbered subparagraph.

4. MEASURES FOR HANDLING PERSONNEL, DOCUMENTS, AND MATERIEL

This paragraph and its subparagraphs contain instructions about the operation which the SOP does not contain or which modify or amplify the SOP for the current operation.

a. Enemy Prisoners of War (EPWs), Deserters, Repatriates, Inhabitants, and Other Persons. State special handling, segregation instructions, and location of the PW collection point which the provost marshal normally provides).

b. Captured Documents. List instructions for handling and processing captured documents from time of capture to receipt by specified intelligence personnel.

B-1
(Classification)

96AUG-1015AXB

c. Captured Materiel. Designate items or categories of enemy materiel required for examination. Include any specific instructions for their processing and disposition.

5. DOCUMENTS OR EQUIPMENT REQUIRED

This paragraph lists, in each category, the conditions under which units can obtain or request certain documents or equipment. Items may include air photographs and maps.

6. MULTIDISCIPLINED COUNTERINTELLIGENCE

The SOP usually covers the information in this paragraph. The OPORD or other annexes list many special operational instructions having counterintelligence aspects. Certain instructions and procedures on the operations of special personnel may require limited dissemination on a need-to-know basis. Therefore, you may need to prepare a special multidisciplined counterintelligence-measures appendix for a limited and specified number of addressees.

7. REPORTS AND DISTRIBUTION

The SOP may largely cover information in this paragraph. It stipulates the conditions (for example, dates, number of copies, issue) regulating the issue of intelligence reports to the originating command for the operation's duration. This paragraph may cover any or all of the following: periods which routine reports and distribution cover; routine and special reports that differ from the SOP required from subordinate units; periodic or special conferences of intelligence officers; distribution of special intelligence studies, such as defense overprints, photo intelligence reports, and order of battle overlays; and special intelligence liaison, when indicated.

8. MISCELLANEOUS INSTRUCTIONS

List, under special subparagraphs, necessary items which the paragraphs above do not cover, which SOPs do not cover, or which require action different from that detailed in SOPs.

ACKNOWLEDGE:

NAME [Commander's last name]
RANK [Commander's rank]

OFFICIAL:
APPENDIXES:
DISTRIBUTION:

b. Format for Annex C (Operation Overlay).

(Classification)

ANNEX C (OPERATION OVERLAY) TO OPERATION ORDER -

References: Maps, charts, and other relevant documents.

1. Follow the general instructions for preparing overlays.

2. Graphically portray the battlefield framework for the proposed operation. Include the following:

- The mission.
- The intent.
- The concept of operation (regarding how the force as a whole will achieve the end state).
- The scheme of maneuver.
- Main and supporting efforts.
- Employment of the reserve.
- Reconnaissance and security operations.
- Deep operations in support of the main effort.
- Major fire support coordinating measures (FSCMs).
- Critical rear operations necessary to maintain momentum or to retain freedom of action. (This may include unit logistic support areas, supply routes, and when used, locations and areas of responsibility for the tactical combat force.)

NOTE: An overlay is a scaled drawing on transparent or translucent material attached to the front of and used with a map. It graphically portrays the location size, and activity (past, current, or planned) of depicted units more consistently and accurately than can text alone. An overlay enhances a viewer's ability to visually analyze the represented physical relationships of units (represented by the overlay) and terrain (represented by the map). From analysis, a trained viewer can attain a vision of a situation as well as insight into the identification of implied tasks, relationships, and coordination requirements which the written plan or order may not list or readily explain. See FM 101-5-1 for map symbology. An overlay can be an annex, appendix, tab, enclosure. or addition.

C-1
(Classification)

96AUG-1015AXC

c . Format for Annex D (Engineer).

(Classification)

(Change from oral orders, if any)

Copy _ of _ copies
Issuing headquarters
Place of issue (may be in code)
Date-time group of signature
Message reference no.

ANNEX D (ENGINEER) TO OPERATION ORDER _____

References: Maps, charts, and other relevant documents
Time Zone Used Throughout the Order:

* * * * * * * * [note]

1. SITUATION

a. Enemy.

(1) Terrain. List all critical terrain aspects that would impact engineer operations.

(2) Weather. List all critical weather aspects that would impact engineer operations.

(3) Enemy engineer capability and/or activity.

(a) Highlight known and ternplated locations and activities of enemy engineer units.

(b) List significant enemy maneuver and engineer capabilities that impact engineer operations.

(c) State the expected employment of engineers based on the most probable enemy COA.

b. Friendly Situation.

(1) List designation, location, and activities of higher and adjacent engineers which would impact the division or would require coordination.

(2) List nonengineer units capable of assisting in engineer operations (for example, non engineer units capable of emplacing scatterable mines).

c. Attachments and Detachments.

(1) List units attached or detached only as necessary to clarify task organization.

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(Classification)

96AUG-1015AXD

(2) Highlight changes in engineer task organization that occur during the operation, including effective times or events.

2. MISSION

Same as the maneuver mission statement.

3. EXECUTION

a. Scheme of Engineer Operations.

(1) Describe the concept of engineer operations to support the maneuver plan, tying in critical engineer tasks or the engineer's main effort of effort by mission,

(2) Establish the main engineer effort by mission and unit for each phase of the operation

(3) Focus primarily on engineer support to close operations.

(4) Obstacles.

(a) Supplement the narrative above focusing specifically on the details of the countermobility effort.

(b) Identify obstacle control measures used to support maneuver units' deep, close, and rear operations. Assign responsibilities, priorities, and restrictions to obstacle-control measures. Restrictions may preclude the use of certain type mines and/or obstacles or the use of obstacles on specific routes.

(c) Identify, prioritize, and assign responsibilities for division-directed and reserve targets. Also provide execution criteria for reserve targets.

(5) Situational obstacles.

(a) Include the concept for employment of situational obstacles. Focus on how they will be used to support the maneuver plan.

(b) During the "supported unit planned and executed phase," clearly identify target location, intent, and execution criteria.

(c) During the supported unit planned and/or subordinate unit executed phase, assign responsibility for executing situation obstacles targeted and resourced by the supporting unit. Include details on NAIs, TAIs, DPs, and execution criteria.

(d) During the "supporting unit resourced and/or subordinate unit planned and executed phase," assign intent and allocate resources. Also state execution criteria, if appropriate.

(e) For each type of obstacle, clearly state which headquarters is responsible for maintaining the authority to use scatterable mines. Also state any restrictions on duration (by obstacle-control measures).

b. Subunit instructions.

(1) List engineer tasks which specific maneuver elements are to accomplish which the base OPORD does not contain.

(2) List engineer tasks the engineers supporting maneuver elements are to accomplish only as necessary to ensure unity of effort.

c. Coordinating Instructions.

(1) Include critical engineer instructions common to two or more maneuver units not already covered in the base OPORD.

(2) Coordinating instructions do not normally include SOP information unless needed for emphasis.

(3) Coordinating instructions may include times or events in which obstacle-control measures become effective if different from the effective time of the order.

(4) Include PIR which subordinate engineer staff officers must consider or which are needed for required reports.

(5) Include mission reports (if not covered in the signal paragraph or unit SOP).

(6) Include explanation of engineer work lines if used.

4. SERVICE SUPPORT

a. Command-Regulated Classes of Supply.

(1) Highlight subordinate allocations of command-regulated classes of supply that impact engineer operations (such as CSR).

(2) Summarize in a matrix or table, if necessary.

b. Class IV and V (Obstacle) Distribution Plan.

(1) State the method of supply (supply point or unit distribution) to be used for Class IV and V materials for each subordinate or supporting unit.

(2) Give tentative locations for Class IV and V supply points or locations for linkup of push packages direct to units.

(3) Give allocation of Class IV and V supplies by subordinate unit, control measure, or combination. Summarize in a matrix or table, if necessary.

c. Transportation.

(1) State the allocation and priority of support of haul and/or airlift assets dedicated for Class IV and V haul.

(2) List requirements for supplementing corps transportation of mission loads (for example, brigades responsible for haul forward of PL___, each brigade provides _ HEMTTs to haul mission).

d. Health Service Support. Address arrangements made for corps engineer units operating in forward maneuver unit areas.

e. Host Nation

(1) List the type and location of HN engineer facilities, assets, or support

(2) List the procedures for requesting and acquiring HN engineer support.

(3) Highlight any limitations or restrictions on HN support (for example, HN personnel not authorized forward of PL ___).

5. COMMAND AND SIGNAL

a. Command

(1) State the location of key engineer leaders.

(2) Designate a logical chain of command

(3) Designate an engineer headquarters to control the engineer effort within engineer work lines on an area basis.

b. Signal.

(1) Describe the nets which must be monitored for reports, if different from SOP

(2) Designate critical engineer reporting requirements of subordinates if not covered in coordinating instructions of SOP, if needed.

* * * * * * * *

ACKNOWLEDGE:

NAME [Commander's last name]
RANK [Commander's rank]

OFFICIAL:
APPENDIXES:
DISTRIBUTION:

NOTE: Details between asterisks are examples only. Use headings appropriate to your operation.

d. Format for Annex E (Army Aviation).

(Classification)

(Change from oral orders, if any)

Copy _ of _ copies
Issuing headquarters
Place of issue (may be in code)
Date-time group
Message reference no.

ANNEX E (ARMY AVIATION) TO OPERATION ORDER

References: Maps, charts, and other relevant documents.
Time Zone Used Throughout the Order:

* * * * * * * * [note]

1. SITUATION

Include information affecting aviation support which paragraph 1 of the OPORD does not cover or which needs to be expanded.

a. Enemy Forces. Refer to Annex B to OPORD _, if applicable. Detail enemy air capabilities and AD capabilities.

b. Friendly Forces. Outline higher headquarters plan and note other aviation resources supporting the unit.

c. Attachments and Detachments. List aviation resources attached and detached to the unit or formation. Include effective times, if applicable.

2. MISSION

Clearly, concisely state the Army aviation (AAVN) task. _

3. EXECUTION

a. Concept of Operation. Briefly state the proposed aviation operation. Include priorities,

b. Tasks to Subordinate and Supporting AAVN Units. Outline major roles or tasks which AAVN elements are to perform in support of the operation.

c. Coordinating Instructions. Include instructions which apply to two or more subordinate units. Refer to supporting appendixes not referenced elsewhere. Include instructions which apply to flight operations and/or which refer to the airspace management annex.

E-1
(Classification)

96AUG-1015AXE

ANX E (AAVN) to OPORD____-(Issuing HQ)
[number]

4. SERVICE SUPPORT

5. COMMAND AND SIGNAL

* * * * * * * *

ACKNOWLEDGE:

NAME [Commander's last name]
RANK [Commander's rank]

OFFICIAL:
APPENDIXES:
DISTRIBUTION:

NOTE: Details between asterisks are examples only. Use headings appropriate to your operation

e. Format for Annex F (Fire Support).

(Classification)

(Change from oral orders, if any)

Copy _ of _ copies
Issuing headquarters
Place of issue (may be in code)
Date-time group
Message reference no.

ANNEX F (FIRE SUPPORT) TO OPERATION ORDER _

References: Maps, charts, and other relevant documents.
Time Zone Used Throughout the Order:

* * * * * * * * [note]

1. SITUATION

Include information affecting tire support which paragraph 1 of the OPORD does not cover or which needs to be expanded.

a. Enemy Forces. See Annex B to OPORD _, if provided.

(I) This paragraph includes a detailed description of enemy fire support and AD assets. For FS assets, address Army aviation; tactical air power; EW; SOFs; FA; rocket or missile forces; naval gunfire or missile capabilities; and NBC capabilities. Address AD assets from the viewpoint of their capability to disrupt friendly air combat operations, either fixed or rotary wing. Describe the composition, organization, tactical doctrine, weapons, equipment, and FS logistic operations. Refer to previously published documents such as an order of battle (OB) workbook or intelligence annex.

(2) Information is normally gathered one level up and two levels down; however, include higher echelon FS assets identified by the G2/S2 as capable of influencing mission accomplishment. List enemy rocket, cannon, or missile artillery units, including those organic to maneuver units, as being committed or reinforcing. List all artillery units that can be identified as being committed or reinforcing. Consider all artillery units that can be identified as being within supporting range as being in support of the committed force. For Army aviation and tactical air power, list the type and number of enemy aircraft, the airfields, and their operational radius. Include the number of possible sorties by day, if known. Include enemy airborne EW capabilities and their possible effects on friendly C^3. Estimate the number, type, yield, and delivery means of enemy NBC weapons available to the committed force.

b. Friendly Forces.

(1) Provide the higher headquarters' mission and the commander's intent. Include the higher headquarters' concept of fires.

(2) Provide adjacent units' concept of fires.

(3) Include supporting air power and naval forces.

c. Attachments and Detachments. List fire support resources attached or OPCON to the unit by higher headquarters and any units detached or OPCON to other headquarters.

2. MISSION

State clearly and concisely WHO (2d (US) Corps Artillery) does WHAT (provides supporting fires to forces of the 2d (US) Corps), WHEN (D-day, H-hour; 00; 050200Z Jan 19xx, and so on), WHERE (to facilitate the destruction of the 2 GTA and passage of 10th (US) Corps). Do not include be-prepared missions in the mission statement.

3. EXECUTION

a. Concept of Fires. Describe how fires will be used to support the maneuver commander's concept of operation. This must be consistent with what is in paragraph 3a(2) of the higher headquarters OPLAN but may be in greater detail, Describe each phase of the operation as it applies to FS operations if the higher headquarters plan is phased. Address essential FS tasks such as counterfire, preparations and counterpreparations, supporting J-SEAD operations, and joint precision strike operations. Address the objectives for using air power, FA and naval gunfire, and EW. Address the priority of FS for GS and GSR units by phase, if applicable.

b. Air Support.

(1) General. Briefly describe the maneuver commander's intent for the use of air power.

(2) Air interdiction (AI) operations. Briefly describe the joint force air component commander's (JFACC's) intent for AI. Describe the maneuver commander's concept for AI within his area of operations as well as his priorities for target attack.

(3) Close air support (CAS) operations, Give the allocation and distribution of CAS sorties by subordinate unit. This paragraph may also include the desired method for planning CAS (immediate, pre-planned, or "push CAS") or any special control arrangements.

(4) Electronic combat (EC) operations. Include the concept for use of EC aircraft if resources are provided by the JFACC.

(5) Reconnaissance and surveillance (R&S) operations. Include the concept for use of R&S aircraft if resources are provided by the JFACC

(6) Miscellaneous. Include information necessary for planning as well as information not included in or which includes changes to the TSOP, such as in the following areas:

(a) The air tasking order's (ATO) effective time period.

(b) Deadlines for submission of AI, CAS, S&R, and EC requests.

(c) The mission request numbering system as it relates to the target numbering system.

(d) The J-SEAD tasking from the joint force land component commander (JFLCC).

(e) Reference to essential A^2C^2 measures (coordinating altitude, target areas, low level transit route (LLTR) requirements, and so on) identified in the A^2C^2 annex.

c. Field Artillery Support.

(1) General. Include the concept for use of cannon, rocket, and missile artillery in support of close, deep, and rear operations. Include specific tasks to subordinate FS headquarters; for example, counter-fire or the J-SEAD planning responsibility. Address any potential requirements for massing fires which may affect direct support or reinforcing artillery units. The timing and duration of specific fire plans should be identified (counterfire, preparations, counterpreparations, SEAD, or J-SEAD).

(2) Organization for combat.

(3) Allocation of ammunition, List the allocation of cannon, rocket, and missile ammunition for each phase of the operation based on the amount of C1 V supplies available in theater and allocated to the corps (unconstrained haul capability) as shown here.

	Cannon	*Rocket*	*Missile*
Phase I	28,000	5,000	400
Phase II	60,000	9,000	1,100
Phase III	35,000	7,500	600

(4) Miscellaneous. Include information necessary for planning as well as information not included in or which includes changes to the TSOP. Refer to an FS execution matrix or a matrix developed by the FSCOORD to graphically portray the concept of fires (lethal or nonlethal) to support the maneuver commander's concept of operation, if needed. If desired, refer to an FA support plan (an appendix to the FS annex which expands on FA tasks). Other information in this subparagraph may include the following:

(a) Changes to the targeting numbering system.

(b) The use of pulse repetition frequency (PRF) codes.

(c) Positioning restrictions.

d. Naval Gunfire Support.

(1) General. Include the concept for use of naval gunfire support Include specific tasks to supporting FS headquarters.

(2) Organization. List the grouping or organization for combat, including the following

(a) The allocation of observers and/or spotters.

(b) The allocation of ships to units.

(3) Miscellaneous Include information necessary for planning as well as information not in or which includes changes to the TSOP, such as the following.

(a) Trajectory limitations or minimum safe distances.

(b) Frequency allocations.

(c) Reference to a naval gunfire support annex.

e. Nuclear Targeting (corps only). Provide nuclear targeting guidance in accordance with the higher headquarters' OPLAN.

f. Chemical Support.

(1) Include the concept for use of smoke. (Refer to the NBC Annex.)

(2) Prescribe priorities for decontamination and reconnaissance.

g. Offensive EW Support. Include the concept for use of EW (jamming) in close and deep operations. Include specific tasks to supporting EW organizations. Refer to the EW annex foe EW organization, ES and EA priorities, and restricted frequency lists. See paragraph 3a(5) of the OPLAN for the concept for use of EW.

h. Target Acquisition. Include information pertaining to the employment and allocation of FA target-acquisition systems and IEW assets. Refer to an FA support plan plan for specific target-acquisition tasks, if needed. The FA support plan can include planning products such as an observation matrix, FS execution matrix, radar deployment order, or target-acquisition appendix.

i. Coordinating Instructions. Include information pertaining to the force as a whole for use by subordinate and adjacent units to coordinate fires. This may include the following areas:

(1) A clear definition of the boundary of the deep operations area if not specified in the basic plan. This area may be identified by phase if it is a phased operation.

(2) Refer to targeting products (target-selection standards matrix, high-payoff target list (HPTL), and attack-guidance matrix (AGM)), if needed.

(3) Fire support coordination measures (FSCMs).

(4) Refer to time of execution of program of fires relative to H-hour (counterfire, preparations or counter-preparations, J-SEAD, and so on), if needed.

(5) Include rules of engagement

4. SERVICE SUPPORT

a. Concept of Support. Describe critical or unusual sustainment actions that might occur before, during, and after the battle to support the commander's concept of fires. Use additional subparagraphs to provide more detailed CSS information by functional area (man, arm, fuel, fix, and move) and to describe classes of supply.

b. Supply. Identify the location of ammunition transfer points (ATPs) and ammunition supply points (ASPs), or refer to the logistics overlay. List the CSR, if needed.

5. COMMAND AND SIGNAL

a. Command

(1) Identity locations of maneuver unit TAC, main, and rear CPs and alternate headquarters.

(2) Identify locations of artillery CPs and FSEs as well as alternate headquarters. Identify the succession of command.

b. Signal. Identify the current SOI edition as well as the FS code book edition.

ACKNOWLEDGE:

NAME [Commander's last name]
RANK [Commander's rank]

ANX F (FIRE SPT) to OPORD _-(Issuing HQ)
[number]

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NOTE: Details between asterisks are examples only. Use headings appropriate to your operation

f. Format for Annex G (Air Defense).

(Classification)

(Change from oral orders, if any)

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ANNEX G (AIR DEFENSE) TO OPERATION ORDER _

References: Maps, charts, and other relevant documents.
Time Zone Used Throughout the Order:

* * * * * * * * * [note]

1. SITUATION

Include any information affecting AD support which paragraph 1 of the OPORD does not cover or which needs to be expanded.

a. Enemy Forces, See Annex B to OPORD _, if applicable. Detail enemy air capabilities.

b. Friendly Forces, Outline the higher headquarters plan and higher and adjacent unit AD plans. Note other AD resources supporting the unit.

c. Attachments and Detachments. List attached and detached AD resources. Include effective times, if applicable.

2. MISSION

Clearly, concisely state the AD task.

3. EXECUTION _

a. Concept of operation. Briefly state the proposed AD operation. Include AD priorities. Refer to the deployment overlay appendix, if appropriate.

b. Tasks to Subordinate AD Units.

Coordinating Instructions. Include instructions applicable to two or more subordinate units. Refer to supporting appendixes not referenced elsewhere. Outline weapons control status (WCS) and ROE.

G-1
(Classification)

96AUG-1015AXG

(Classification)

ANX G (AIR DEF) to OPORD _-(Issuing HQ)
[number]

4. SERVICE SUPPORT

5. COMMAND AND SIGNAL

* * * * * * * *

ACKNOWLEDGE:

NAME [Commander's last name]
RANK [Commander's rank]

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NOTE: Details between asterisks are examples only. Use headings appropriate to your operation.

(Classification)

g. Format for Annex H (Army Airspace Command and Control (A^2C^2)).ext

(Classification)

(Change from oral orders, if any)

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ANNEX H (ARMY AIRSPACE COMMAND AND CONTROL) TO OPERATION ORDER_

References: Maps, charts, and other relevant documents.
Time Zone Used Throughout the Order:

* * * * * * * * * [note]

1. SITUATION

Include information affecting AD support which paragraph 1 of the OPORD does not cover or which needs to be expanded.

a. Enemy Forces. Refer to Annex B to OPORD _, if applicable. Detail enemy air defense and radio electronic combat capabilities.

b. Friendly Forces. Outline the higher headquarters' plan, higher and adjacent unit airspace management plans, and and any other army aviation resources supporting the unit and other air resources (such as Air Force, Navy, allied, or coalition)

c. Attachments and Detachments. List attached and detached Army aviation resources. Include effective times, if applicable. _

2. MISSION

Clearly, concisely state the A^2C^2 task.

3. EXECUTION

a. Concept of Operation. Briefly state the proposed A^2C^2 plan. Include airspace priorities. Refer to the air route overlay appendix, if appropriate.

b. Tasks to Subordinate A^2C^2 Air Traffic Control Organizations.

c. Coordinating instructions.

(1) List instructions applicable to two or more subordinate units.

(2) Refer to supporting appendixes not referenced elsewhere.

(3) Outline ADA warnings, WCS, and ROE, if different from the SOP.

(4) Detail rules of flight and in-flight procedures, if different from SOP.

(5) Give coordinating altitudes.

(6) Describe liaison.

(7) Detail hostile and friendly aircraft data.

(8) Outline routes and corridors (such as minimum-risk routes, LLTRs, and standard-use routes).

(9) Describe restricted areas (such as restricted operations areas and high-density airspace control zone).

(10) Detail FSCOORD measures (such as the FSCL or restricted fire areas).

4. SERVICE SUPPORT

5. COMMAND AND SIGNAL

* * * * * * * *

ACKNOWLEDGE:

NAME [Commander's last name]
RANK [Commander's rank]

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NOTE: Details between asterisks are examples only. Use headings appropriate to your operation.

h. Format for Annex I (Electronic Warfare (E W)).

(Classification)

(Change from oral orders, if any)

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ANNEX I (ELECTRONIC WARFARE) TO OPERATION ORDER _

References: Maps, charts, and other relevant documents.
Time Zone Used Throughout the Order:

* * * * * * * * [note]

1. SITUATION

Include information affecting EW operations which paragraph 1 of the OPORD does not cover or which needs to be expanded.

a. Enemy Forces. Refer to Annex B to OPORD _, if applicable. Detail enemy electronic capabilities, communications and noncommunications means, and radio-electronic combat (REC) systems.

b. Friendly Forces. Outline the higher headquarters' plan, higher and adjacent unit EW plans, and any other EW resources supporting the unit.

c. Attachments and Detachments. List attached and detached EW resources. Include effective times, if applicable.

2. MISSION

State the EW task clearly and concisely.

NOTE: Details between asterisks are examples only. Use headings appropriate to your operation,

3. EXECUTION

a. Concept of Operation. Briefly state proposed defense EW and electronic combat operations. Include priorities.

b. Tasks to Subordinate and Supporting EW Units.

ANX I (EW) to OPORD _-(Issuing HQ)
[number]

c. Coordinating Instructions. List instructions which apply to two or more subordinate units. Refer to supporting appendixes not referenced elsewhere or to other annexes as necessary for coordination of EW operations (such as deception, PSYOP, or signal operations).

4. SERVICE SUPPORT

5. COMMAND AND SIGNAL

* * * * * * * *

ACKNOWLEDGE:

NAME [Commander's last name]
RANK [Commander's rank]

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i . Format for Annex J (Signal).

(Classification)

(Change from oral orders, if any)

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ANNEX J (SIGNAL) TO OPERATION ORDER _

References: Maps, charts, and other relevant documents.
Time Zone Used Throughout the Order:

* * * * * * * * [note]

1. SITUATION

Include any information affecting signal operations which paragraph 1 of the OPORD does not cover or which needs to be expanded.

a. Enemy Forces. Refer to Annex B to OPORD _, if applicable. Detail enemy signal capabilities or any actions which might affect signal operations.

b. Friendly Forces. Outline the higher headquarters' plan and higher and adjacent unit signal operations. Identify any other signal resources supporting the unit.

c. Attachments and Detachments. List attached and detached signal resources, including effective times, if applicable.

2. MISSION

State the signal task clearly and concisely.

3. EXECUTION

a. Concept of Operation. Briefly state proposed signal operations. Include priorities

b. Tasks to Subordinate and Supporting Signal Units.

c. Coordinating Instructions

(1) General.

ANX J (SIG) to OPORD _-(Issuing HQ)
[number]

(2) Wire.

(3) Radio.

4. SERVICE SUPPORT

5. COMMAND AND SIGNAL

* * * * * * * *

ACKNOWLEDGE

NAME [Commander's last name]
RANK [Commander's rank]

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j. Format for Annex K (Operations Security).

(Classification)

(Change from oral orders, if any)

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ANNEX K (OPERATIONS SECURITY) TO OPERATION ORDER _

References: Maps, charts, and other relevant documents.
Time Zone Used Throughout the Order.

* * * * * * * * [note]

1. SITUATION

a. Enemy Forces. Refer to Annex B of OPORD _, if applicable. Include any information affecting OPSEC operations which paragraph 1 of the OPORD does not cover or which needs to be expanded. Detail enemy intelligence collection, sabotage activities, and subversive situation. Outline current enemy activities and potential capabilities. Show the extent of the enemy intelligence threat. Address the following subparagraphs:

(1) Weather. Detail how the weather could affect enemy intelligence collection capabilities and friendly OPSEC measures.

(2) Terrain. Detail how the terrain could affect enemy intelligence collection capabilities and friendly OPSEC measures.

(3) Intelligence collection and sabotage and subversion. Detail the enemy's capability to collect intelligence and to carry out sabotage and subversion activities.

(a) Intelligence.

1. Ground surveillance and reconnaissance. Include visual observations, patrols, ground radar data, infrared surveillance, information from unattended ground sensors, and so on.

2. Aerial surveillance and reconnaissance. Include intrusion, standoff, RPVs and drone flights, and information from reconnaissance satellites.

3. Signal intelligence. Include COMINT and ELINT data.

4. Electronic warfare. Include intercept and direction finding, jamming, and destruction.

5. Guerrillas, insurgents, and agents.

6. Others (such as refugees, EPWs, and so on).

(b) Sabotage.

1. Military.

2. Economic.

(c) Subversion.

1. Propaganda.

2. Terrorism

3. Politics.

(4) Enemy intelligence and security weaknesses. Outline the enemy's weaknesses in intelligence collection, sabotage, and subversion capabilities. Discuss internal security measures. (For example, can friendly forces penetrate and destroy a training area with patrols? Are enemy signal security procedures vulnerable'? Is the enemy vulnerable to jamming for some specific reason?)

b. Friendly Forces

2. MISSION

State the OPSEC mission clearly and concisely.

3. EXECUTION

a. Concept of Operation. List countersurveillance measures found in the field or tactical SOP. Emphasize new or revised countersurveillance procedures. List countermeasures applicable to the units given special instructions in the OPSEC plan. Refer to each countermeasure with the SOP's paragraph and item number (for example, TAPE OVER ALL UNIT VEHICLE MARKINGS, SOP PARA 3-2).

b. Tasks to Subordinate and Supporting OPSEC Units, List additional countermeasures which the SOP does not cover that require emphasis by all assigned and attached units in the command. These countermeasures are designed to counter a specific enemy intelligence threat.

c. Countermeasures, List countermeasures which specific units are to implement, Countermeasures are in the division's SOP and can relate to regular units or to units in special situations. You may need other paragraphs or subparagraphs to cover items of special importance to some operations. (For example, physical and personnel security measures may need more emphasis at some time, or units responsible for directing COMSEC and ELSEC or monitoring friendly activities may require separate instructions.)

d. Coordinating instructions. Outline how units can exploit identified enemy vulnerabilities and weaknesses. (The staff counterintelligence (Cl) officer must coordinate with adjacent and subordinate units and other staff sections to obtain input on which to build countermeasures against the enemy intelligence threat.)

e. Counterintelligence. Summarize the internal security threat. Discuss internal security problems within the command (such as compromise of classified material or loss of SOI.

f. Other. List special instructions not previously covered, such as the following C1 targets (with priorities and locations):

	Targets	Priorities	Location
1st Brigade	A	1	Grid coordinate
	B	3	Grid coordinate
2d Brigade	Y	1	Grid coordinate
	P	5	Grid coordinate

g. List the Cl Chain of Command.

4. SERVICE SUPPORT

5. COMMAND AND SIGNAL

Include liaison and recognition arrangements, identification instructions, and responsibilities for forwarding information to C^2 elements. List locations of C^2 elements, OPSEC units, and teams within the command's area. List reporting channels for type of information requested, type reports needed, frequencies, and stated priorities.

* * * * * * * *

ACKNOWLEDGE:

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RANK [Commander's rank]

ANX K (OPSEC) to OPORD _-(Issuing HQ)
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k. Format for Annex L (Deception).

(Classification)

(Change from oral orders, if any)

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ANNEX L (DECEPTION) TO OPERATION ORDER _

References: Maps, charts, and other relevant documents.
Time Zone Use Throughout the Order:

* * * * * * * * [note]

1. SITUATION

Include information affecting deception operations which paragraph 1 of the OPORD does not cover or which needs to be expanded.

a. Enemy Forces. Refer to Annex B to OPORD - if applicable. Detail enemy intelligence capabilities and limitations. Include a description of any features of enemy collection patterns or agencies.

b. Friendly Forces. Outline higher headquarters plan and higher and adjacent unit deception plans. Note other deception resources supporting the unit.

c. Attachments and Detachments. List deception resources attached or detached to the unit or formation. Include effective times, if applicable.

2. MISSION

State the deception task clearly and concisely.

3. EXECUTION

a. Concept of Operation. Briefly state the proposed deception operation. Include the deception story.

b. Tasks to Subordinate and Supporting Deception Units.

c. Coordinating Instructions. Include instructions which apply to two or more subordinate units, Refer to other supporting appendixes as appropriate.

L-1
(Classification)

96AUG-1015AXLM

ANX L (DECEPTION) to OPORD _-(Issuing HQ)
[number]

4. SERVICE SUPPORT

5. COMMAND AND SIGNAL

* * * * * * * *

ACKNOWLEDGE:

NAME [Commander's last name]
RANK [Commander's rank]

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NOTE: Details between asterisks and examples only. Use headings appropriate to your operation.

l. Format for Annex M (Psychological Operations (PSYOP)).

(Classification)

(Change from oral orders, if any)

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Message reference no.

ANNEX M (PSYCHOLOGICAL OPERATIONS) TO OPERATION ORDER _

References: Maps, charts, and other relevant documents
Time zone Used Throughout the Order:

* * * * * * * * [note]

1. SITUATION

Include information affecting PSYOP which paragraph 1 of the OPORD does not cover or which needs to be expanded.

a. Enemy Forces. Refer to Annex B to OPORD _, if applicable. Detail enemy PSYOP capabilities.

b. Friendly Forces. Outline higher headquarters plan and higher and adjacent unit PSYOP plans. Note PSYOP resources supporting the unit.

c. Attachments and Detachments. List PSYOP resources attached and detached to the unit or formation. Include effective times, if applicable.

2. MISSION

State the deception objective clearly and concisely.

3. EXECUTION

a. Concept of Operation. Briefly state the proposed psychological operation. Include priorities, target groups, and objectives. State themes and actions the unit is to stress or avoid.

b. Tasks to Subordinate and Supporting PSYOP Units.

c. Coordinating Instructions. Include instructions which apply to two or more subordinate units. Refer to other supporting appendixes as appropriate.

M-1
(Classification)

96AUG-1015AXLM

ANX M (PSYOP) to OPORD _-(Issuing HQ)
[number]

4. SERVICE SUPPORT

5. COMMAND AND SIGNAL

* * * * * * * *

ACKNOWLEDGE:

NAME [Commander's last name]
RANK [Commander's rank]

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NOTE: Details between asterisks are examples only. Use headings appropriate to your operation.

m. Format for Annex N (Nuclear, Biological, and Chemical Defense Operations (NBC))

(Classification)

(Change from oral orders, if any)

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Message reference no.

ANNEX N (NUCLEAR, BIOLOGICAL, AND CHEMICAL DEFENSE OPERATIONS) TO OPERATION ORDER _

References: Maps, charts, and other relevant documents.
Time Zone Used Throughout the Order:

* * * * * * * * [note]

1. SITUATION

Include information affecting NBC defense which paragraph 1 of the OPORD does not cover or which needs to be expanded.

a. Enemy Forces. Refer to Annex B to OPORD _, if applicable. Detail enemy NBC capabilities

b. Friendly Forces. Outline the higher headquarters plan and higher and adjacent unit NBC plans. Note other NBC decontamination and reconnaissance resources supporting the unit.

c. Attachments and Detachments. List NBC defense and decontamination and reconnaissance resources attached and detached to the unit. Include effective times, if applicable._

2. MISSION

State the NBC defense task clearly and concisely.

3. EXECUTION

a. Concept of Operation. Briefly state the proposed NBC defense plan Include major groupings of NBC decontamination and reconnaissance means and priorities.

b. Tasks to Subordinate and Supporting NBC Defense Units

N-1
(Classification)

96AUG-1015AXNP

c. Coordinating Instructions.

(1) Include instructions which apply to two or more subordinate units.

(2) Refer to other supporting appendixes to which this annex does not refer.

(3) Detail OEG.

(4) Outline troop-safety criteria (corps only).

(5) Detail MOPP-level guidance.

(6) Give procedures for limiting electromagnetic pulse (EMP) effects.

(7) List locations of decontamination sites.

(8) Give directions for rendering assistance to local population.

4. SERVICE SUPPORT

a. List any availability information, distributing procedures, prestock points, and transportation of NBC defense supplies and equipment.

b. List procedures for handling contaminated casualties, if not in SOP.

c. List any information on the availability and location of field-expedient decontamination supplies, materiel, and decontaminants.

5. COMMAND AND SIGNAL

* * * * * * * *

ACKNOWLEDGE:

NAME (Commander's last name)
RANK (Commander's rank)

OFFICIAL:
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NOTE: Details between asterisks are examples only. Use headings appropriate to your operation

n. Format for Annex P (Rear Operations).

(Classification)

(Change from oral orders, if any)

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Message reference no.

ANNEX P (REAR OPERATIONS) TO OPERATION ORDER _

References: Maps, charts, and other relevant documents.
Time Zone Used Throughout the Order:

* * * * * * * * [note]

1. SITUATION

Include information affecting rear operations which paragraph 1 of the OPORD does not cover or which needs to be expanded.

a. Enemy Forces. Refer to Annex B to OPORD - if applicable. Detail the following enemy capabilities:

(1) NBC weapons.

(2) Airborne, air assault, and other regular unit assaults.

(3) Attacks by irregular forces.

(4) Air or guided missile (GM) attacks.

(5) Psychological warfare.

b. Friendly Forces. Outline the higher headquarters plan, higher and adjacent unit rear area operations plans, and assistance which allied or coalition forces and civilian authorities will provide.

c. Attachments and Detachments.

2. MISSION

State the rear operations task clearly and concisely.

ANX P (REAR OPS) to OPORD - -(Issuing HQ)
[number]

3. EXECUTION

a. Concept of Operation. Briefly state the rear area combat operations (RACO) and area damage control (ADC) plan. Include major groupings of forces and their priorities. Refer to the rear area operation overlay appendix, if applicable.

b. Tasks to Subordinate and Supporting Units Rear Area Operations.

c. Coordinating Instructions. Include instructions that apply to two or more subordinate units; are necessary for coordination and cooperation among forces and with civilian authorities; or concern RACO and ADC that differ from the SOP. Refer to supporting appendixes not referenced elsewhere.

4. SERVICE SUPPORT

5. COMMAND AND SIGNAL

a. Command. Include location of rear command post, and describe liaison arrangements.

b. Signal.

ACKNOWLEDGE:

NAME [Commander's last name]
RANK [Commander's rank]

OFFICIAL:
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NOTE: Details between asterisks are examples only. Use headings appropriate to your operation.

o. Format for Annex Q (Service Support (SVC SPT)).

(Classification)

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ANNEX Q (SERVICE SUPPORT) TO OPERATION ORDER _

References: Maps, charts, and other relevant documents
Time Zone Used Throughout the Order:

* * * * * * * * [note]

1. SITUATION

Include information affecting service support which paragraph 1 of the OPORD does not cover or which needs to be expanded.

a. Enemy Forces. See Annex B to OPORD - if applicable.

b. Friendly Forces. Outline the higher headquarters plan and higher and adjacent unit service support plans. Note other service support resources supporting the unit.

c. Attachments and Detachments. List attached and detached service support resources. Include effective times, if applicable.

2. MISSION

Clearly, concisely state the service support task.

3. EXECUTION

a. Concept of Operation. Briefly state the proposed service support operation. Include priorities.

b. Tasks to Subordinate Service Support Units.

c. Coordinating Instructions. List instructions which apply to two or more subordinate units. Refer to supporting appendixes not referenced elsewhere.

Q-1
(Classification)

96AUG-1015AXQ

(Classification)

ANX Q (SVC SPT) to OPORD --(Issuing HQ)
[number]

4. SERVICE SUPPORT (MATERIEL AND SERVICES)

a. Supply. Provide information by class of supply. List maps, water, special supplies, and excess and salvage materiel, as applicable.

b. Transportation. Identify facility locations, traffic control, regulation measures, MSRs, transportation critical shortages, and essential data not provided elsewhere.

c. Services. Identify services available, the designation and location of units providing the services, and the time the service will be available.

d. Labor. Include essential information as appropriate.

e. Maintenance. Include priority of maintenance, location of facilities and collecting points, timelines, and evacuation procedures.

5. MEDICAL EVACUATION AND HOSPITALIZATION

Outline plans for collection, medical treatment, medical evacuation, and hospitalization of sick, injured, or wounded US, allied, and coalition soldiers, EPWs, and civilians, as appropriate. Discuss support requirements for health service logistics (including blood management), combat stress control, preventive medicine, dental services, and veterinary services.

6. PERSONNEL

Detail plans for unit-strength maintenance; personnel management; morale development and maintenance; discipline, law and order; headquarters management; and so on.

7. CIVIL-MILITARY COOPERATION

8. MISCELLANEOUS

9. COMMAND AND SIGNAL

* * * * * * * *

ACKNOWLEDGE:

NAME [Commander's last name]
RANK [Commander's rank)]

96AUG-1015AXQ

ANX Q (SVC SPT) to OPORD ---(Issuing HQ)
[number]

OFFICIAL:
APPENDIXES:
DISTRIBUTION:

NOTE: Details between asterisks are examples only. Use headings appropriate to your operation.

APPENDIX 1 (SERVICE SUPPORT MATRIX) to ANNEX Q (SERVICE SUPPORT) to OPERATION ORDER

Supply	Location	Oper hrs	Rqn/turn-in procedures	Movement control	Remarks
Cl I					
Cl II					
Cl III					
Cl IV					
Cl V ATP 1 ATP 2 ATP 3 ASP					
Cl VI					
Cl VII					
Cl VIII					
Cl IX					
Cl X					
Trans					
Maint					
Water pts					
SLCR					
GRREG					
MMC MCC					

Classified by:
Declassification on: OADR

CHAPTER 7

COMBAT REHEARSALS

7-1. INTRODUCTION

Friction is inevitable on the bat&field. A commander reduces friction by conducting combat rehearsals. Rehearsals confirm or teach units techniques by which to gain agility, synchronization, and aid in gaining or retaining the initiative throughout the area of operations during the mission. Rehearsals help--

- Clarify the commander's intent.
- Expose combat CS, or CSS flaws or disconnected activities in the plan which the enemy could exploit to his advantage.
- Reinforce the scheme of maneuver and the fire support plan.
- Focus on actions and decision points critical to mission accomplishment, given the unit's current state of training, expected terrain and weather conditions, and orders issued.
- Ensure that subordinate commanders explicitly understand their missions, how their missions relate to each other, and how each mission relates to their commander's plan.
- Outline conditions which, when present, would necessitate execution of branch plans and critical actions subordinate commanders would have to successfully execute to accomplish the mission in accordance with the commander's intentions.
- Provide feedback to the senior commander.

Combat rehearsals instill confidence in participants, and confidence is crucial. It-

- Gives participants faith in their own plan's success as well as in their comma&r's plan.
- Provides subordinate commanders with purpose, direction, and motivation.
- Enables leaders to execute missions with speed flexibility, and audacity, as stated in the maxim, "A poor plan thoroughly rehearsed has a greater chance for success than an excellent plan that is not *rehearsed."* (George S. Patton, Jr., *War As I Knew It,* 1947).

The comma&z can also use rehearsals to reinforce understanding of the plan by helping a subordinate commander visualize the exact meaning of his and his commander's intent. Moreover, repetition of combat tasks leaves a lasting mental picture of the sequence of key actions within the operation. Emphasizing possible branches also helps subordinates understand what they must do if the battle plan goes awry, which, in turn, instills confidence.

Time is the most precious resource available to commanders. Rehearsals take time, and the time rehearsals require varies with the-

- Complexity of the tasks to be rehearsed.

- Type of rehearsal.
- Level of participation in the rehearsal.
- Proximity of the enemy to the force.
- Enemy's ability to gain intelligence from observing or monitoring the rehearsal.

Daylight is far more important for combat preparations by small-unit leaders than it is for commanders of larger echelons. Therefore, emphasis on rehearsals should be at the lowest command echelons (brigade and below), using the most thorough rehearsal technique possible within the time available. The force should rehearse at least once during daylight performing through OPSEC procedures consistent with deception operations.

To effectively and efficiently employ rehearsal in combat, commanders must habitually use them in training. All units at every echelon must routinely train and practice a variety of rehearsal techniques. Unit SOPs must identify appropriate rehearsal techniques and standards.

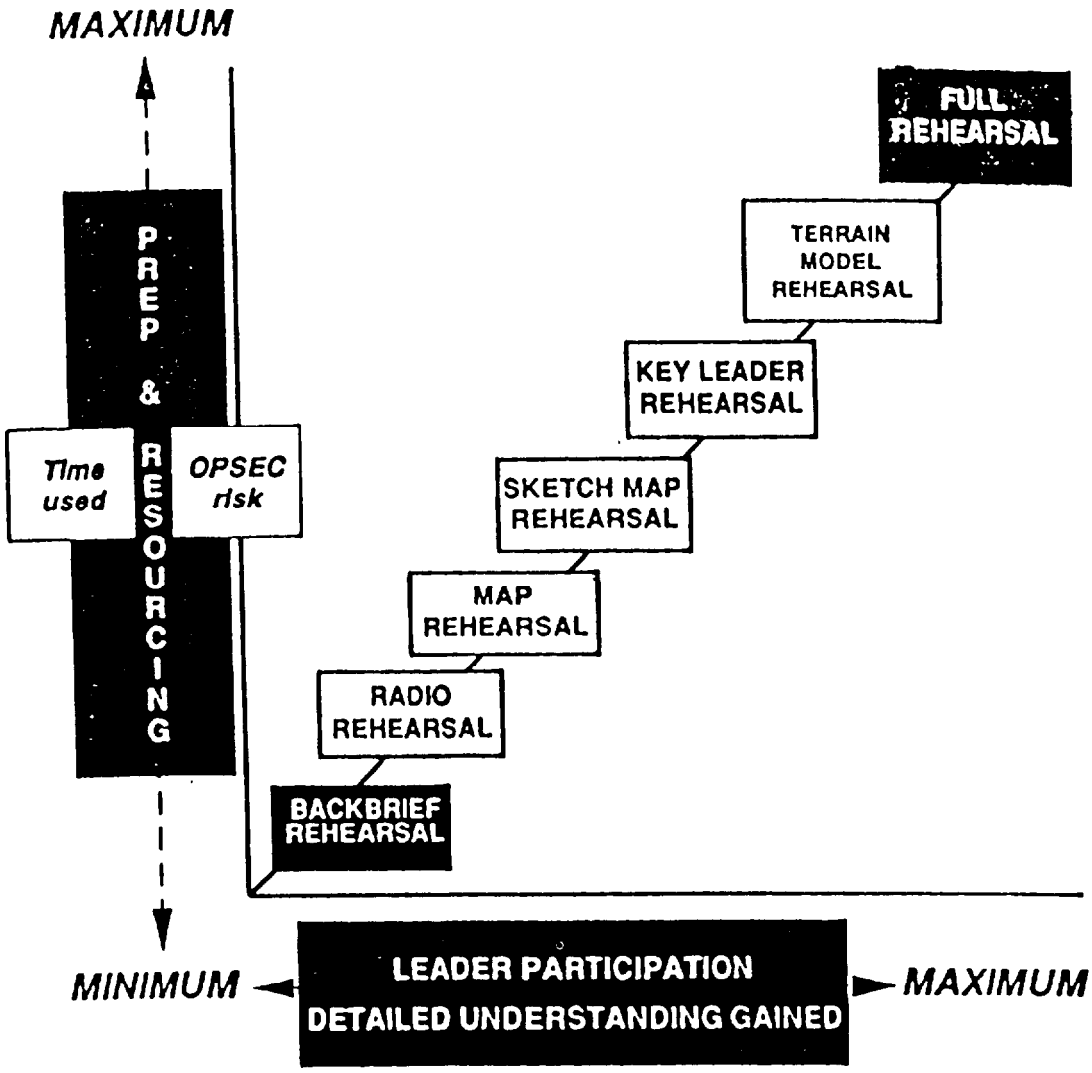
7-2. TYPES OF REHEARSALS

Commanders must conduct rehearsals even when planning and preparation are compressed. Several types of rehearsal are available. The commander can select the one which strikes the closest balance between the time available to him, his subordinates' level of understanding of his concept of the operation, and the OPSEC he must maintain.

To improve combat-rehearsal effectiveness, the commander must understand available rehearsal options. He must know their cost in time and resources, OPSEC compromise risks, benefits in leader participation, and the resulting detailed understanding. To make rehearsals work to his advantage, he must train his staff to extract each techniques's maximum benefits. A commander who thoroughly plans rehearsals will dramatically improve his subordinates' understanding of the operation.

a. Rehearsal types. There are generally seven of rehearsals--full, key-leader, terrain model, sketch map, map, and radio and backbrief. These rehearsal types are not new; trainers have used them with varying degrees of success in combat and at combat training centers for many years. Time and resourcing needed to preparare for these seven types ranges from minimal to extensive. Each takes a decreasing amount of time and resources to prepare and conduct the rehearsal (fig 7-1). Each rehearsal technique has different degrees of benefits (the understanding which participants gain) and security risks.

(1) *Full rehearsal.* Full rehearsal produces the most detailed understanding of the mission within the command; however, it consumes the most time and resources, and it involves every soldier and system participating in the operation. If possible, units should conduct full rehearsal under the same conditions (weather, time of day, terrain, and so on) as the force will encounter during the actual operation. For example, in defensive operations, units can conduct a full rehearsal over the actual terrain. In an offensive operation, units can conduct the rehearsal on any available terrain which closely resembles the terrain and space parameters of the area of operations.



NOTE: Resources include time, personnel, and efforts. Benefits increase as resources increase (understanding gained by participants). However, OPSEC-compromised risks also increase.

Figure 7-1. Rehearsal types.

(2) *Key-leader rehearsal.* This rehearsal takes less time and resourcea than a full rehearsal, because it involves only the unit's and subordinate units' key leaders. Key leaders can conduct rehearsals both day and night under the same conditions they could expect in combat (for example, rehearsing a night attack after first conducting a day rehearsal). During key-leader rehearsal, the commander first decides the level of leader involvement he &aim. His selected leader then rehearse the plan using their assigned tactical vehicles while traversing the actual terrain. Terrain requirements are the same as for a full rehearsal; only the number of participating changes.

Because of the reduced number of participants, the key-leader rehearsal usually takes less time. Commanders often conduct this type of rehearsal during defensive operationa. However, as during full rehearsal, it is highly susceptible to enemy combat intelligence activities. In the training enviroment,

commanders use the tactical exercise without troops (TEWT) technique as one way of conducting a key-leaderrehearsal.

(3) *Terrain-model rehearsal.* This rehearsal takes less time and fewer resources than a key-leader rehearsal. The comma&r can conduct this type of rehearsal day or night, under a tent, or in a building. If the modeler constructs the terrain model accurately, this rehearsal technique can significantly help subordinate leaders visualize the battle in accordance with their commanders' intentions.

When possible, the commander should place the terrain model where it overlooks the actual terrain of the area of operations. However, if the situation requires more security, he should place the terrain model on the reverse slope of a vantage point within walking distance of a point overlooking the area of operations. The model's orientation should coincide with the actual orientation of the terrain in order to help participants orient to the actual area of operations. The size of the terrain model can vary--from a simple table-top arrangement to a large model on which the participants can actually walk. A large model helps reinforce participants' perception of relative positions of units on the actual terrain. This rehearsal technique also helps participants visualize the execution of the mission.

To create an accurate terrain model, the modeler first determines the scale. He can easily do this by "walking off" so many steps per kilometer. For example, in an AO 10 kilometers by 6 kilometers, the modeler could assign one step to one kilometer and walk off the scale of his terrain model. The modeler could also use some other form of scaled metric measurement, such as centimeters to meters or meters to kilometers.

The second step in developing an accurate terrain model is to lay down grid lines on the same scale as on the map the commander uses to plan and control the operation. After establishing grid lines, the modeler can use them as references to measure the size and location of terrain features. This simple step greatly increase the accuracy of the terrain model, keeps terrain features in the proper scale, and reinforces participants' memories as they use their maps during the actual operation.

The terrain model must depict all of the information shown on the operation overlay, including the names of key terrain features, enemy positions (known and suspected), and all critical FSCMs. An arrow on the model must depict magnetic north (south in the southern hemisphere). The modeler also labels all terrain features, phase lines, and objectives with appropriate names as the OPORD prescribes.

Finally, the commander assembles key leaders and staff officers in front of the terrain model. The commander and each subordinate leader walk through a sequential (either by phase, event, or time), interactive, verbal execution of the operation, including decision points and branch plans. In the training enviroment, commanders often use this rehearsal technique when briefing the unit's general defense plan (GDP).

(4) *Sketch-map rehearsal.* A sketch rehearsal takes less time and resources than a terrain-model rehearsal. Units can conduct this rehearsal almost anywhere day or night. The procedures are the same as for a terrain-model rehearsal, except the commander uses a sketch in place of a model. However, sketches must be large enough for all participants to see as the commander and his staff talk each subordinate leader through a sequential, interactive, verbal execution of the operation.

(5) *Map rehearsal.* A map rehearsal takes even less time and resources than a sketch map rehearsal. The unit can conduct a map r&anal day or night. The procedures are similar to the sketch map rehearsal, except the commander uses a map and operation overlay of the same scale as he used to plan and control the operation. Using the map, the commander and his staff walk each subordinate leader through a sequential, interactive, verbal execution of the operation.

To ensure clarity, the commander should conduct this rehearsal at a vantage point overlooking the terrain of the area of operations. He can use one of two commonly used map-rehearsal techniques. One has each subordinate leader following the rehearsal on his own map and overlay; the other involves laying the map and overlay horizontally, moving unit symbols across the map as in a war game to show the planned sequence of action-reaction- counteraction in accordance with the synchronization matrix.

(6) *Radio rehearsal. The* commander and his staff conduct radio rehearsals by interactively and verbally executing critical portions of the operation over established communications networks. This is accomplished in a general sequence of events that the commander establishes. Because of the obvious dangers involved with using this particular technique, only the essential, most critical portions of the operation are rehearsed, but, when used, these rehearsals should include all communications facilities and equipment necessary to conduct that actual portion of the operation. To be effective, all participants must have working communications equipment and a copy of the OPORD and its overlays.

Radio rehearsal generally takes leas time and fewer resources than other types of rehearsals except the backbrief; however, this may not always be the case at higher command echelons.

(7) *Backbrief rehearsal.* This type of rehearsal takes the least time and resources. The commander and his subordinates can use it to identify flaws or problems in the operation but to a lesser degree than in other types of rehearsals. Also, this technique allows the commander to clarity his intent early in his subordinates' decisionmaking process. A backbrief is effective when used with another type of rehearsal. The commander can conduct the backbrief day or night, in person, or via communications means.

During the backbrief, each s&ordinate commander briefs the commander *on* how he intends to accomplish his mission before he issues his OPORD to his respective unit. By briefing and explaining his intent and concept of operation to his higher commander, the higher commander can ensure that his subordinate commander's intent is properly nested with that of his own. Flaws or potential problems with the operation may also be revealed at this time.

NOTE: Do not confuse the backbrief with the confirmation brief the commander uses immediately after he issues an OPORD to determine how well a subordinate commander understands the mission, task or directive he has just been given, In the confirmation brief, he normally requires subordinate commanders to restate what he wants them to do and why. Typically, the confirmation brief occurs at the conclusion of the orders or OPLAN brief when all subordinate commanders are present, adjourning the session only when he is confident his subordinates understand their mission, his and his higher commander's intent, his concept of operation, scheme of maneuver, deception objective, rear operations priorities, the time plan, and the type and location of the rehearsal.

b. Special rehearsals. Although the majority of rehearsals which maneuver units plan and conduct are rehearsals of combat actions by subordinate maneuver units, rehearsals of special tasks or special functional groups are sometimes desirable. Examples of special rehearsals include command group, main CP shift, fire support, decontamination, and security plans, obstacle breaching, or engineer-reserve demolition target turnover. Special rehearsals use the rehearsal types previously described.

The commander decides which special rehearsal to conduct, if any. For example, he may use a special rehearsal for parallel planning to maximize a subordinate's preparations of specific tasks required in the early execution of an operation. Of course, he must first specify the subordinate command and the task.

Special rehearsals do not replace other rehearsal. They augment, supplement, or reinforce them. Some example of tasks appropriate for special rehearsals are--

- Decontamination of a unit which must crass a known contaminated area.
- The reconnaisance portion of the force's reconnaissance and security plan with the tasked units.
- Briefing the incoming shift of a command post with CCIR information collected versus unknown, ad likely actions which may occur using the operation's DST.

7-3. PREPARING FOR A REHEARSAL

During rehearsals, the commander's role is crucial. He is the driving for force in the interactive exchange of action, reaction, and counteraction that cements the plan in his subordinates' minds. He focuses his staff to create the rehearsal conditions that best replicate the future battle. In the final analysis, whether the commander (or his CofS/XO or G3/S3) conducts the rehearsal himself, the effectiveness of the rehearsal is the commander's responsibility. The commander and staff should begin detailed rehearsal planning as soon as the commander approves a course of action.

In the first step of planning, the commander *selects the rehearsal technique* when he issues his guidance. This enables a small portion of the staff to begin preparing the rehearsal site (selection, security, and construction's final decision.

The commander then *approves the plan* and decides whether to conduct a reheasal that includes the entire operation or one that covers only critical portions of the operation. Reducing the rehearsal to critical portions saves time but might sacrifice comprehension of the whole plan. Time will be the driving factor of the commanders's final decision.

The commander next *refines the time plan* that the staff prepares for the execution of the mission. The time plan consists of the time-distance calculations of the unit's planned events. In an offensive operation, the time plan should begin with the first offensive action--from when the unit begins displacement from the assembly area to when it crosses the LD. In a defensive operation, the time plan begin with an H-hour time stemming from the first sighting of the enemy or the first expected enemy event--either of which depicts events that could occur during the battle.

The staff calculates pertinent time-distance factors of enemy and friendly actions, including the ----

- Time the reserve takes to move from point A to B.
- Time taken by the movement of the enemy's lead formations and main body.
- Time taken to employ obstacles (such as family of scatterable mines (FASCAM) or to get fire support (such as CAS) in an engagement area.

In the fourth planning step, the commander and staff *develop a short list of action-reaction-counteraction events*. They base this short list on their understanding of possible enemy actions that the war gamers projected. This list becomes the scrip for the rehearsal and guides the commander through major events. Developing a DST helps them develop this list.

The last step is to *conduct the rehearsal.* The commander, or his designated representative, plays the role of controller and commander. He orders the action by time or event just as he would in combat. His intelligence officer plays the role of the enemy (actions and reactions). This allows the unit to rehearse each critical battle action, practice contingencies and branch plans, and verify planning factors. One staff member becomes the recorder to record any adjustments to the plan or unresolved questions the rehearsal product.

7-4. CONDUCTING A REHEARSAL

Participants can use the following sequential guidelines during rehearsals:

- Orient participants to the training aid and the terrain.

- Define the standard (that is, what the commander will accept as satisfactory performance for the rehearsal).

- Visualize and synchronize the concept of operation. Verbally walk through the concept of operation. Subordinate commanders should interactively verbalize their unit's actions, entering or leaving the discussion at the lime they would expect to begin or end their tasks or activities on the battlefield. This will help the commander assess the adequacy of synchronization.

- Focus on the key events and the synchronization required to achieve the desired effect on the enemy.

- Consider the enemy's courses of action (using the possibilities derived from the war game during COA analysis).

- Address any points in the operation where the execution of branches or sequels are likely to occur.

- If the standard is not met and time permits, rehearse again.

- For feedback, make the necessary changes to the DST (such as positions, synchronization, or DP locations).

a. Before rehearsal. Once participants assemble at the rehearsal site, the rehearsal leader (the commander or G3/S3) briefs them and leads the rehearsal. His briefing must include an introduction and overview and an orientation.

(1) *Introduction and overview.* The commander or G3/S3 *introduces* himself and all other participants as appropriate. He then gives an *overview* of the briefing topics, the rehearsal subjects and sequence, and the time line (specifying the NLT ending time). He explains participation in afteraction reviews (AARs) and how and when they will occur and how he will incorporate changes into the existing order. He explains, in detail, restrictions imposed on the force, such as the use of pyrotechnics, light discipline; weapons firing, or radio transmissions. He ensures that all participants understand safety precautions and enforces their use. Last, he emphasizes results and what standards of task execution k expects. He allows subordinate leaders to relate any results of tactical planning or rehearsals they may have already- unit recommends a change to the existing plan, the commander or the G3/S3 acts on the recommendation before the rehearsal begins (when possible); however, before the rehearsal ends, the recommendation will always be resolved by a decision.

(2) *Orientation.* The rehearsal leader gives an orientation to familiarize participants with the terrain or scale model in use. He also issues supplemental materials, if appropriate. He identifies magnetic north on the terrain model or scaled terrain and points out objects and terrain features representing actual terrain features. He also explains whatever graphic control symbols, obstacles, or fire support targets are represented. The rehearsal leader always concludes the orientation with a call for questions.

b. During rehearsal. After the briefing, the rehearsal begins in accordance with the rehearsal plan. The commander or G3/S3 observes and critiques all portions of the rehearsal. Critiques center on meeting the commander's intent and coordination between units. The internal execution of tasks within the rehearsal are almost always left to the subordinate unit commander's judgment and discretion. Leaders at all levels conduct periodic AARs to ensure that units rehearse tasks to acceptable levels of competence and to ensure that substandard performance is not reinforced.

Afteraction reports also provide an opportunity to incorporate lessons learned into the existing plan or into subsequent rehearsals. The rehearsal leader must emphasize integration of fire support, events which trigger different branch actions, and actions on contact. If units in reserve participate, they should rehearse all of their most likely branches. Rehearsals continue until units are competent or until maximum time available expires. (Before the comma&r adjusts the rehearsal times, he must consider how his decision will impact a subordinate commander's time plan.) Subsequent rehearsals may employ additional complexity and realism as time and the commander permit.

c. After rehearsal. After the rehearsal, the commander reassembles participants to conduct an AAR. He reviews lessons learned and makes only the absolute minimum required modifications to the existing plan. (Normally, these changes are effected by issuing a FRAGO.) This meeting also allows the commander to issue any last-minute instructions or reminders and to reiterate his intent. Subordinate commanders incorporate any changes the commander makes to the existing plan into their units' orders and plans. Such changes are also briefed to any key leader or unit which did not participate in the rehearsal. Changes to the plan should serve as refinements to that plan; they should not be characteristically radical or significant. Changes which are not critical to the execution of the operation can confuse subordinates and desynchronize the plan and, therefore, should be resisted. Before the rehearsal is ever executed, the plan on order should be developed with at least the basic five paragraphs and necessary overlays issued or published. Publication of all annexes may not yet be completed; however, the details should already be developed. Commanders must remember that the rehearsal is not a substitute for the war game.

d. Training-aids kit and field expedients. Rehearsal-training aids augment participants' imaginations and help them share the same visualization of the operation. Training aids are especially useful with terrain models. The purpose of the kit is to minimize the scrounging of expedients so participants can direct rehearsal-preparation efforts to completing the fourth step of the preparation procedures,

(1) *Training-aids kit.*

The training-aids kit's basic components are the same for light or heavy units. The components are climate-specific (for example, arctic, desert, jungle, or temperate), because climates have varying effects on certain materials (such as spray paint). The quantities of the kit's components are a function of the size of the model and the number of times the trainer will use the model before he must replenish expendable portions.

A kit suitable for a small terrain model (such as a sand table) consists of-

- A vehicle's first-aid box painted brown on the outside except for the two locking tabs which are white. (The white tabs on the kit box enable a user to quickly open and close it in the dark.) The box's interior is also white.

- A small-arms repair parts box. This small box tits inside the first-aid kit and can hold miniature vehicle replicas and map symbology such as assembly areas, check points, command posts, coordinating points, decontamination points, engagement areas, passage points, objectives, unit symbols, and so on.

- Miniature vehicle replicas.

- A map protractor to which is attached a brightly colored (orange, red, yellow) thread about 1/2-meter long.

- Cotton balls, to simulate smoke.

- string.

- Lacing wire, to simulate wire obstacles.

- Tongue depressors, to simulate bridges and breaches.

- Pipe cleaners, in assorted colors

- Powdered chalk, in water-tight containers such as tubes. The kit must contain blue, red, white, and black (charcoal) chalk.

- A pencil sharpener, to grind stick chalk into powder.

The components of this kit are all available through the supply system or the self service supply center (SSSC). All components will tit into the first-aid box. The first-aid box must be watertight and be able to fit into the back pocket of the Alice pack (ruck sack). The resulting kit is durable and will even survive multiple parachute drops.

Larger terrain models require larger training aids than those in the smaller kit. All participants must be able to see and read them. Spray paint replaces chalk, engineer tape replaces string, and a ruck sack or a small, durable box replaces the first-aid box.

(2) *Field expedients.* All rehearsal training-aid kits require augmentation by field expedients. Otherwise, the training-aid kit would become too large and troublesome to be of practical use. Like the components of the kit, field expedients represent some feature of the terrain, enemy or friendly disposition, or some type of activity, such as smoke, minefields, pre-planned fires.

Field expedients are only limited to the imagination of the terrain modeler and rehearsal participants. Some examples include stones, deadfall branches, leaves, vegetation, and so on; canteens; cans; meals, ready-to-eat (MRE) cases; ponchos or the side of a vehicle to be used as a chalk board; vehicle tarps; and aiming posts.

CHAPTER 8

FRATRICIDE COUNTERMEASURES

8-1. INTRODUCTION

Fratricide is the employment of friendly weapons and munitions, with the intent to kill the enemy or destroy his equipment or facilities, that results in unforeseen and unintentional death or injury to friendly personnel Fratricide is a type of accident and a grim consequence of war. Its effects, spreading deep within a unit, can be devastating.

Fratricide increases the possibility of mission failure or failure to achieve the desired effect, causes unacceptable losses of personnel and equipment, and erodes leadership effectiveness. It tears the fabric that binds units and, at least temporarily, incapacitates their ability to execute their mission. The resulting degradation of cohesion and morale adversely affects a commander's ability to generate combat power, and combat power is crucial for the successful execution of Army operations.

Units respond to fratricide in a number of dysfunctional ways. During maneuver operations, it can cause them to-

- Hesitate to conduct operations during periods of limited visibility
- Reduce the speed, audacity, and aggressiveness with which they execute fire and maneuver,
- Disrupt execution of operations, hindering synchronization efforts.
- Hesitate to use supporting combat systems of the joint and combined arms team
- Lose morale, at least temporarily.
- Be unavailable at the decisive time and place to effect the overall mission.

Fratricide can also affect leadership by causing a decrease in a leader's self-confidence, which can, in turn, cripple his willingness to take prudent risks. It can also cause a loss of confidence in leadership. In turn, this can cause-

- "Smothering" (over-supervision of subordinate units).
- Reduction of initiative by subordinates to act independently of higher headquarters.
- Hesitation to act decisively and aggressively, or to inflict maximum punishment on the enemy.

Minimizing a soldier's exposure to potential fratricidal conditions is an obvious command responsibility. Leaders must be knowledgeable of fratricide's dysfunctional effects and how those effects place units and mission success at risk. Leaders must be aware of conditions which cause fratricide and implement fratricide countermeasures. They must take a holistic approach involving C^2, training, and materiel solutions.

Although the potential for fratricidal acts are greatest during wars, fratricide can also occur during training activities and combat simulations. It is an all-too-frequent mishap during combat simulations at all Army combined training centers. Regardless of the environment, leaders must make every effort to reduce the potential for fratricide.

8-2. CAUSES OF FRATRICIDE

When a soldier fires a weapon, the projectile will-

1. Miss everyone.
2. Hit enemy forces.
3. Hit noncombatants.
4. Hit friendly forces.
5. Hit two or more of the above.

Weapons systems can detect, engage, and destroy targets at maximum range, but weapons-sighting equipment cannot provide high resolution of targets at extended ranges, especially during limited-visibility conditions. Insufficient resolution of targets precludes definitive, positive target identification as either friend or foe. Consequently, without additional visual aids or fire control measures, the only thing soldiers can do to definitively distinguish targets as friend or foe is to observe subtle signature differences. They must try to interpret the target's activities as being either friendly or enemy actions and act accordingly. Situation awareness improves a soldier's or a commander's ability to positively identity potential targets. Situational awareness is the real-time, accurate knowledge of the locations of friendly forces, most enemy forces, and neutral and noncombat personnel.

The causes of potential fratricidal situations are extensive and diverse, and they defy quick, simple, or direct solutions. causes can include-

- Fire control errors, including individual errors, weapons errors, and unit errors. *Individual errors* are as simple as mistaken identity. *Weapons errors* include lapses in unit and individual discipline that allow for powder-charge errrors, accidental discharges, mistakes with explosives or hand grenades, ill-advised booby traps, incorrect gun data, and similar incidents. *Unit errors* include errors in the use of weapons-engagement areas or sectors or in using fire control measures.

- Lapses in procedural control measures such as permissive and restrictive maneuver and fire support. Accidents can occur when proper procedural control measures are not used not disseminated not on recognizable terrain, difficult to identify on the ground, or are unknown.

- Not receiving warnings and reports in time and with enough detail to allow adequate synchronization of the force.

- Land navigation errors, such as when units or individuals stray out of sector, report wrong locations, become disoriented, or unknowingly engage targets out of sector.

- Lack of unit-leader experience. Junior leaders have the least experience and judgment, yet they must make rapid, instantaneous decisions to engage targets under ambiguous, stressful conditions.

- Battlefield stress. Tempo, fatigue, lethality of modern weapons, disruption of control by enemy use of EW, physical expansion of the danger area around battlefields, and the threat or use of weapons of mass destruction all contribute to battlefield stress.
NOTE: See also FM 100-5,1986, pp. 88-89.

- Limited visibility. More fratricidal incidents occur at night than during the day.

- Focused (synchronized) combat power which, while increasing the destruction of the enemy, also increases the risk of fratricide caused by mistaken identity, navigation errors, or inaccurate or dysfunctional reporting procedures.

- Battle command doctrine. Battle command doctrine is based on securing or retaining the initiative and exercising it aggressively to accomplish the mission. The object of all operations is to impose our will on the enemy to achieve our purposes. To do this, we must throw the enemy off balance with a powerful blow from an unexpected direction, follow up rapidly to prevent his recovery, and continue operations aggressively to achieve the higher commander's goals. These operations must be rapid and violent and be unpredictable and disorienting to the enemy. The pace must be fast enough to prevent him from taking effective counteractions.

The successful execution of Army operations doctrine produces chaos and confusion and affects both friendly and enemy forces. The friendly commander must turn these inherent conditions into an advantage which he can exploit. He must seek to intensify the natural conditions of war in order to produce intense levels of chaos and utter confusion to interfere with the enemy commander's ability to command. The friendly commander can achieve this by using a decentralized command system within which he has synchronized overwhelming combat power which he can then focus at decisive areas.

With the initiative (from the fratricide countermeasures perspective), the friendly commander can control where the chaos, confusion, and stress of battle will occur, when it will occur, and who it will affect. He can maximize its on the enemy while minimizing the effects on his own command.

- Risk. There are two types of risk-losing men and equipment to attain the mission, and choosing a course of action which may not be successful or which may succeed but fail to achieve the desired effect A commander must take such risks with prudence. Prudent risks emphasize operational functions with the proper balance of administrative functions, such as-

-Understanding the limits of units and components.

-Understanding the enemy, identifying weaknesses, and creating opportunities to exploit enemy weaknesses.

-Pursuing actions that gain or retain the initiative

-Planning for a mission or for unit training.

-Training with supporting branches (joint and combined arms).

-Participating, supervising, and observing unit training.

8-3. FRATRICIDE COUNTERMEASURES

Fratricide countermeasures preserve and conserve the force. Planning specific fratricide countermeasures begins during COA analysis. During the war game, commanders identify P^2 control measures which can help eliminate or reduce potential fratricidal situations. Commanders can derive specific P^2control measure using operational analysis and risk assessment procedures. They must also balance Army operations doctrine with fratricide countermeasures considerations by integrating P^2 control measures into training and material considerations.

The primary task of fratricide countermeasures is to optimize combat power. They must be consistent with the intentions of the commander of the higher headquarters while reflecting guidance two echelons down.

The degree to which commanders wish to go to implement fratricide countermeasures often depends on--

- Time.
- Enemy interference.
- The operation's complexity.
- The unit's proficiency.
- Material advantages.
- The proximity of maneuver units.
- Environmental factors.
- Rules of engagement.

Fratricide countermeasures are based on--

- Ensuring unity of effort.
- Anticipating events on the battlefield.
- Concentrating combat power against enemy vulnerabilities.
- Designating, sustaining, and shifting the main effort.
- Pressing the fight.
- Moving fast, striking hard, and finishing rapidly.
- Using terrain, weather, deception, and OPSEC effectively.
- Conserving strength for decisive action.

- Coordinating with combined arms units and sister services to complement and reinforce the mission.

- Understanding the effects of battle on soldiers, units, and leaders

During the chaos of battle, no matter how well commanders plan fratricide countermeasures, they will confront situations for which they are not prepared. As a general rule, though, soldiers in a situation in which all potential targets are enemy targets may detect and engage all targets.

If there is a possibility that enemy targets and friendly forces are mixed together in the targeted area, soldiers must then detect, verify all targets, and engage enemy targets.

8-4. REDUCING FRATRICIDAL RISKS

a. Training. If a unit is not suffciently trained, prepared, or proficient, it is more susceptible to fratricide. Therefore, commanders must make sure their units are fully trained. Training takes place during all phases of an operation.

(1) *Mission preparation and execution*

Commanders, staffs, and leaders must have expert knowledge of P^2 control measures. They must be able to recognize situations and conditions most likely to cause fratricide and incorporate P^2 control measures into orders to subordinate and adjacent commanders. Figure 8-1 shows a sample risk-assessment matrix.

When preparing for a mission, commanders can use *rehearsals* to verify or modify the appropriateness of P^2 control measures. Rehearsals ensure that subordinates explicitly understand the proposed operation. This reduces the probability of fratricide while improving synchronization. During mission execution, the commander only restricts subordinates' freedom of action in order to synchronize the operation or to minimize the force's exposure to fratricide.

(2) *Individual training.* Leaders can reinforce fratricide countermeasures by instilling into subordinates the idea of inflicting the maximum punishment on the enemy with the least damage to themselves. commanders should have access to the following:

- The combat-vehicle identification (CVI) interactive video disk, which promotes positive vehicle identification and includes a thermal recognition section which replicates vehicle thermal images.

- The conduct-of-fire trainer (COFT) simulator, which includes upgraded realistic views of combat vehicles.

Conduct-of-fire trainer AARs include a review of fratricidal incidents which occur during simulations. Reviewing AARs help the unit discover the causes of fratricidal events. They can then learn how to preclude future fratricidal events and near misses. The AAR may also include the following decision points:

- Command and control measures (that is, the planning, preparation and execution of the mission as related to fratricide countermeasures).

RISK REDUCTION/FRATRICIDE PREVENTION MEASURES
Assessed Risk Level

	Low	Moderate	High
MISSION	Backbriefs Supervision SOPs Synchronization	Limited visibility rehearsal Restrictive control measures Guides/beacons/vectoring automatic Disseminate intent	Task force rehearsal Multiple synch rehearsals Converging/adjacent forces rehearse Leaders fwd/Redundant comm Extensive recon/centralization
ENEMY	Review ROE Combat vehicle recognition Exploit enemy weaknesses neutralize strength Challenge/Password discipline	Marking enemy positions Some direct fire units–weapons hold and tight Detailed deception IFF expedients for exposed elements	Clear friendly marking Additional recognition signal Challenge/password Enhancements
TERRAIN/ WEATHER	Seasonal hazards Detailed navigation plan Safety discipline	Limited visibility plan Ground guides/Night vision aids Lighten load/review equip list Redundant navigation aids Vehicle hazards considered	Limited objectives Multiechelon navigation Interim halts/assessments Special log/maint actions
TROOPS	Sustainment training Inspections Morale Buddy system	Modify task organization Simplified plan Max use of transport Clear guidance Refresh mission-specific skills	Request additional combat power Phased operations Rotate high-stress positions Don't exceed trng proficiency Add intermediate objectives
EQUIPMENT	PMCS Boresight Pre-combat checks	Cross-level/consolidate equip CBT ID enhancements Review limitations	Modify plan Reduce equipment dependence Provide backups
TIME	Full troop-leading procedures Extensive rehearsals Reconnaissance Sleep plan	Abbr troop-leading process Simplicity/Repetition Controlled pace in execution	Priority of tasks Priority of rehearsals FRAGO only for efficiency
	Routine measures	**(Cumulative)** →	**Extraordinary Measures**

Figure 8-1. METT-T risk assement matrix.

- Coordination and liaison with adjacent and subordinate units and their effectiveness in reducing fratricide.

- Determining the conditions that were present during a fratricidal incident or near miss, including what decision criteria led to the incident and ways to prevent recurrences.

(3) *Crew training.* An experienced crew is of little tactical value. They are more likely to engage friendly forces than would a trained crew; therefore, commanders must make sure crews have the proper training. Proper precautions can help crew members stay within the safety parameters of an area of operations. For example, in lieu of more sophisticated navigational equipment, crew members must learn to keep their vehicles generally oriented in the desired direction of maneuver with or without a compass while inside the vehicle. Crew members can achieve the correct turret orientation by using chalk marks on the turret ring or by hanging a small light on the back of the driver's seat. When stationary, crew members can mark engagement sectors and azimuths to target-reference points (TRPs) by placing thermally visible pickets a short distance (approximately 20 meters) from the vehicle where both the gunner and the vehicle commander can see them.

NOTE: In combat situations where the crew cannot positively identify the detected target as an enemy target, they must call for a verification of the target before they execute the fire command.

b. Materiel solutions. Identification equipment uses active or passive measures to provide a unique signature with which to distinguish friend from foe. Such equipment enables other friendly forces to distinguish vehicles and positions as friendly even at the detection ranges of optical surveillance and weapons-engagement equipment.

Materiel solutions can be either low-tech, high-tech, or a combination of both. The major drawback is that an enemy who has comparable technological capabilities can develop similar equipment to either mimic or locate this equipment.

(1) *Low-tech solutions.* Low-tech solutions use markings with unique signatures that are not visible to low-power optics such as binoculars. In limited visibility conditions, marking devices involve low-power or self-generating light using visible and infrared light bands. These markings are standardized by international agreement. Other markings enable an observer to identify specific units. Field commanders have the authority to expand these symbols.

Occasionally, the US and its allies use other unique markings to identify alliance equipment for specific operations, For instance, during the Normandy Operations of WWII, three white bands were painted on the fuselage and each wing of all allied aircraft. During Operation DESERT STORM, a single black inverted V was placed on the sides of each vehicle.

NOTE: The combat vehicle marking system (CVMS) establishes a single prescriptive standard for marking combat vehicles. The system uses numbers, chevrons, and half chevrons set on the side and back panels of combat vehicles.

(2) *High-tech solutions.* High-tech solutions include such sophisticated equipment as thermal beacons, thermal tape, and navigational aids, Units can use these items in a variety of ways to increase their visibility and reduce the chances of fratricide.

Thermal-beacon prototypes are essentially thermal emergency lights emitting a pulsing light like that of a strobe. One test configuration causes the beacon to flash in response to laser range-finding light via a separate sensor on the vehicle. Planners are currently examining these devices for adaptation to combat vehicles.

During Operation DESERT STORM, units used a technical innovation called no-power thermal target (NPTT) material. It is basically a thermal tape which, when viewed through a thermal sight, offers a distinct image that appears as the reverse polarity of the thermal image. When used in the white-hot mode, the tape is distinctly seen as a black image on a white vehicle background (the inverted black V). Thermal tape has been adopted as the material of choice for common, theater-wide, vehicle-marking procedures.

Navigational aids, such as the long-range aid to navigation (LORAN) system and the global positioning system (GPS), are critical to accurate maneuver in the desert, especially at night. The Navstar GPS and tbe mobile ground receivers which pick up satellite signals were used extensively during Operation DESERT STORM. Troops often used the portable receivers to confirm their locations in the largely featureless northern Saudi desert. Air Force forward air controllers (FACs) working with ground forces used the receivers to help pilots pinpoint and verify targets.

(3) *Combined low- and high-tech solutions.* The US Army will soon field a combination of low- and high-tech vehicle-identification solutions to help detect targets. Such new technology will also include devices to help friendly forces more accurately identify targets as either friend or foe.

CHAPTER 9

PERSONNEL/CSS ESTIMATES

9-1. INTRODUCTION

The personnel/CSS estimate is a logical and systematic process staff officers use to analyze the influence combat service support(CSS) factors have on a contemplated course of action. This chapter is designed to assist logistic staff planners in preparing a preparing a personnel/CSS logistic estimate.

The estimates are as thorough as time permits. At division level, estimates are not normally written. At echelons above division, the estimate is written and follows the format outlined on the following pages. Personnel/CSS staff officers coordinate with other staff officers when preparing their estimates. They may incorporate material from other staff estimates, but they are still responsible for the validity of all data included in their estimate.

Personnel/CSS estimates are kept current. As factors that influence operations change, new facts are developed and assumptions become facts or become invalid. The estimates are an integral part of any commander's decisionmaking process. The following personnel/CSS estimates contain guidance and information for completing the estimate process.

9-2. FORMAT AND INSTRUCTIONS FOR THE PERSONNEL ESTIMATE

(Classification)

Headquarters
Place
Date, time, and zone
Msg ref no.

PERSONNEL (PERS) ESTIMATE NO _

References: Maps, charts, or other documents.

Time Zone Used Throughout the Estimate:

1. MISSION

This paragraph lists the command's restated mission.

2. THE SITUATION AND CONSIDERATIONS

a. Intelligence Situation. This paragraph contains information from the intelligence officer. As the personnel officer, include a brief summary when the details are appropriate and there is a written estimate. to the appropriate intelligence document or use an annex of the estimate. Include--

(Classification)

*This chapter is from ST 101-6, pages 5-1 through 5-8.

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(1) Characteristics of the area of operations.

(2) Enemy strength and dispositions.

(3) Enemy capabilities. Include enemy and nonenemy-sponsored terrorist activities--

(a) Affecting the mission.
(b) Affecting personnel activities.

b. Tactical Situation. Information for this paragraph comes from the commander's planning guidance and from the G3(S3). Include-

(1) Present dispositions of major tactical elements.

(2) Possible courses of action. List all given courses of action.

NOTE: You will use these courses of action throughout this estimate.

(3) Projected operations, if known. List projected operations and other planning factors required for coordinating and integrating staff estimates.

c. Combat Service Support Situation. To list the CSS situation-

(1) Present disposition of CSS units and installations that affect the personnel situation.

(2) Show any projected developments within the CSS field that might influence personnel operations.

d Civil-Military Operations Situation. Information for this subparagraph comes from the CMO officer. Such information should help you--

(1) Present dispositions of civil affairs units and installations that affect the personnel situation.

(2) Show any projected developments within the CSS field that might influence personnel operations.

e. Troop Preparedness Situation. Show the status in this subparagraph under the appropriate subheadings. At higher levels of command, detail information in a summary with a reference to an annex to the estimate. subparagraphs include--

(1) Unit strength. Indicate authorized, assigned, and attached strengths. Include the effects of deployability, losses (combat a noncombat), critical MOS and skill shortages, projections (gains and losses),

and any local situations affecting strength; for example, restrictions on the number of soldiers allowed in an area by treaty.

(2) Officer personnel. Indicate personnel, other than unit soldiers, whose presence affects the unit mission. Include EPWs augmentees (non-US forces), civilian internees and detainees, DA civilians, and others, depending on local circumstances.

(3) Soldier personal readiness. Indicate those elements of quality of life and personnel administration and management which provide services, facilities, and policies affecting soldier personal readiness.

(a) Soldier services. In this paragraph, include-

-Administrative services (pay, orders, evaluation reports, decoration and awards, reenlistment, eliminations, separations, promotions, assignments, transfers, personal affairs, leaves, and passes).
-Health services (field medical support, disease, mental health, and other services).
-Health care (medical, dental, entitlements, eligibility, and physical fitness).
-Support services (transportation, commissary, PX cloth& laundry, legal, spiritual, law and order, and so forth).
-Personnel development (education and professional development).
-Community relations.
-Morale support activities (Army community services, libraries, community centers, clubs, movies, and post office).
-Family member assistance planning.

(b) Duty conditions. Includes--

-Work facilities (location and quality).
-Work requirements (impact of frequency and length of field duty and rotation between remote and nonremote duty locations).
-Equipment (adequacy).

(c) Other.

(4) Human potential. Indicate factors affecting the stability and human potential of individual soldiers, teams, and crews to accomplish the mission. Consider, but do not limit yourself to, such factors as turbulence and turnover, experience, personal problems, individual stress, status of crews, and MOS mismatch within the unit.

(5) Organizational climate. Indicate factors affecting personnel readiness. Include---

(a) Communications effectiveness within the chain of command.
(b) Performance and discipline standards.
(c) Incentives.
(d) Drug and alcohol abuse standards.
(e) Counseling.
(f) Human relations.
(g) Supervision.
(h) Planning
(i) Ethics.
(j) Organizational stress.
(k) Other.

(6) Commitment. Indicate he relative strength of the soldier's identification and involvement with the unit. Also not his--

(a) Morale.
(b) Movements.
(c) Confidence.
(d) Trust.

(7) Cohesion. Indicate factors which unite and commit soldiers to accomplish the mission such as--

(a) Esprit.
(b) Teamwork.

f. Assumptions. Until specific planning guidance from the commander becomes available, you may need assumptions for initiating planning or preparing the estimate. Modify assumption as factual data becomes available.

3. ANALYSIS OF COURSES OF ACTION

For each COA, analyze personnel factors affecting each subheading in paragraph 2e indicating problem Tareas, trends, and deficiencies which might affect troop preparedness.

4. COMPARISON OF COURSES OF ACTION

a. Evaluate deficiencies from a personnel standpoint. List advantages and disadvantages, if any, to accomplishing the mission.

b. Discuss the advantages and disadvantages of each COA under consideration. Include methods of

(Classification)

PERS EST NO-
(Short title identification)

overcoming deficiencies or modifications required in each COA.

5. CONCLUSION

a. Indicated whether you have personnel to support the mission (in paragraph 1).

b. Indicate which COAs you can best support from the personnel viewpoint.

c. List major personnel deficiencies which the commander must consider. Include specific recommendations concerning methods of eliminating or reducing the effect of these deficiencies.

/s/ _____
(Personnel Officer - G1(S1)

ANNEXES: (as required)

(Classification)

9-3. FORMAT AND INSTRUCTIONS FOR THE CSS ESTIMATE

(classification)

Headquarters
Place
Date, time, and zone
Msg ref no.

COMBAT SERVICE SUPPORT ESTIMATE NO -

References: Maps, charts, or other documents.

Time Zone Used Throughout the Estimate:

1. MISSION

This paragraph lists the command's restated mission.

2. THE SITUATION AND CONSIDERATIONS

(Classification)

a Intelligence Situation. This paragraph contains information from the intelligence officer. As the CSS officer, you should include a brief summary when the details are appropriate and there is a written estimate. Refer to the appropriate document or use an annex of the estimate. Address the following areas:

(1) Characteristics of the area of operations. Describe the general characteristics of the area of operations. Emphasize any specific aspects which might affect the CSS effort.

(2) Enemy strength and dispositions.

(3) Enemy capabilities. Include--

(a) Any activities affecting the mission. Keep information general, but include both enemy and nonenemy-sponsored terrorist activities.

(b) Any activities affecting CSS activities. Give detailed information oriented toward possible effects on logistic operations. Include what you know about enemy air assault and airborne capabilities, TACAIR, artillery, NBC capabilities, guerrilla operations, and stay-behind or by-passed enemy forces.

b. Tactical Situation. Information from this paragraph comes from the commander's planning guidance and from the operations officer. Subparagraphs should be general and concise statements of tactical intentions. The CSS officer should include--

(1) Present dispositions of major tactical elements. (Also put this information on the CSS overlay annex, if appropriate.)

(2) Possible courses if action. List all given courses of action. (These courses of action are carried forward through the remainder of the estimates.

(3) Projected operations. If known, list projected operations and other planning factors needed for coordinating and integrating staff estimates.

c. Personnel Situation. Include information you obtain from the personnel officer. Include total strength; strengths of units; and factors for casualties, replacements, hospital returnees, and so forth.

(1) Present dispositions of personnel and administration units and installations which would affect the CSS situation.

(2) Show any projected developments within the personnel field likely to influence CSS operations.

d Civil-military. This paragraph details information from the civil-military officer. The CSS officer should include--

(1) Present dispositions of CMO units and installations affecting logistic operations.

(2) Projected developments within the CMO field likely to influence CSS operations.

c. Combat Service Support Situation. This subparagraph should reflect the current status. (Use appropriate subheadings.) In the case of detailed information at higher levels of command, a summary may appear under subheading with reference to an annex to the estimate. You may use an overlay to show all CSS units and installations, current and proposed. Include current status, capability, and any enhanced or reduced capability caused by attached, detached, or supporting units.

(1) Maintenance. Provide a general statement about the present capability [such as repair time factors, posture of maintenance units, some reference to class VII and class IX status if it affects maintenance capability, status of class VII end items (such as repair parts, vans, wreckers) that may affect maintenance, and so forth].

(2) Supply. Provide overall status of controlled items and POL allocations, including pertinent comments on resupply availability, and so forth. Provide information under subheadings of classes of supply; list them in the most meaningful measure (days of supply, total line items, equipment shortages-class VII) by unit.

(3) Services. Provides present status; include both capabilities and problems.

(4) Transportation. Provide present capabilities of mode-operating units to support transportation requirements. Detail adequacy of routes, facilities, and terminals to support distribution requirements. Discuss Discuss capability of movement control and BCC to provide in-transit visibility of movements and to assure sustained flow. Address time and distance factors which would influence the capability to provide support at the right place and time. Consider factors such as facilities and terminals, airlift/drop, and intransit visibility.

(5) Labor. Provide present situation, status, restrictions on use of civilians, and so forth.

(6) Facilities and construction. Provide availability of host nation facilities to serve as headquarters and support facilities. Provide status of construction to upgrade existing facilities and create facilities where

(7) Health service support Provide present status of medical treatment and evacuation resources; projected location of patient-collecting points and ambulance exchange points (AXPs); and status of health service logistics (including blood, medical regulating, and any anticipated increase in casualty rates or EWP) work loads.

(8) EPW operations. Provide facilities, construction, and sustainment functions.

(9) Other

f. Assumptions. Until the commander provides specific planning guidance, you may need assumptions for initiating planning or for preparing the estimate. Modify assumptions as factual data becomes available.

NOTE: As you proceed with the estimate process, keep in mind that the CSS concept is intended to support the mission.

3. ANALYSIS OF COURSES OF ACTION

Analysis all CSS factors for each subheading (paragraph 2e) for each course of action indicating problems and deficiencies. This paragraph, and any subparagraphs, should contain narrative analysis statements explaining mathematical calculations and applied logic. (Mathematical calculations you perform to assess status of any class of supply, maintenance attrition rates, tonnage lift capacity, and so forth, are solely a means to obtain information for full analysis.) The result of your anaylsis for subheadings for each course of action should provide both CSS and tactical impact.

a. Sufficiency of Area. Determine if the area under control will be adequate for CSS operations. Will it be cleared of enemy units? Will other units be sharing the same area (units passing through one another)? Will boundaries remain unchanged?...and so forth.

b. Material and Services. Include these subparagraphs, if appropriate:

(1) Maintenance

(2) Supply

(3) Services.

(4) Transportation.

(5) Labor

(6) Facilities

(7) Contract services.

(8) Other.

4. COMPARISON OF COURSES OF ACTION

a Evaluate CSS deficiencies. List any advantages and disadvantages to accomplish the mission.

b. Discuss the advantages and disadvantages of each course of action you consider. Include methods of overcoming any deficiencies or modifications each course of action requires.

5. CONCLUSIONS

a. Indicate which course or courses of action combat service support can best support.

b. List the major CSS deficiencies the commander must consider. Include specific recommendations concerning the methods of eliminating or reducing the effect of these deficiencies.

/s/_____
(Combat Service Support Officer-G4(S4))

ANNEXES: (as required)

CHAPTER 10*

FORMAT AND INSTRUCTIONS FOR DEVELOPING AND BRIEFING THE CONCEPT OF SUPPORT (PARAGRAPH 4a)

10-1. INTRODUCTION

After the commander selects a specific COA, the staff communicates this decision by publishing the operation plan/operation order (OPLAN/OPORD). The G4. with input from the other logistic staff elements (G1, G5, surgeon, finance and personnel officers, and the support command) will prepare paragraph 4 of the plan. This paragraph contains CSS information as follows:

a. Paragraph 4a is the concept of support. This concise, but comprehensive, paragraph tells the maneuver commander and his primary staff those critical or unusual logistic actions that will occur *before, during,* and *after* the battle to support the concept of the operation.

b. Additional subparagraphs can be used to provide more detailed CSS information by functional area. Usually, however: these subparagraphs are omitted, and this detailed information is published as part of the service support order to the plan. The G4 prepares this order with input from the other logistic staff elements.

The G4 also can prepare a CSS overlay to show supported units' supply route locations and supporting logistic organizations. Finally, routine, doctrinal, or constant information is incorporated into the unit tactical standing operating procedures (TSOP) to avoid repetition.

10-2. DEVELOPMENTAL GUIDELINES

a. General rules for paragraph 4a.

(1) Use language that is clear, concise, and comprehensive. Avoid technical terminology.

(2) Focus on what the non-CSS commander needs to know about how the operation will be sustained. This makes paragraph 4a the logistic equivalent to the concept of the operation

(3) Consider the tactical logistic functions in the contest of actions accomplished before. during. and after the operation. The operative term is *consider.* The intent is not to address each function unless it is critical or unusual. If the operation is phased, then the logistic support for the *during* portion of the concept of support should also be structured by phase.

(4) The concept of support establishes priorities of support for before. during, and after the operation. The commander at each level establishes these priorities in his intent statement (e.g.. main effort) and in the concept of the operation (paragraph 3). This could include prioritizing such things as personnel replacements; maintenance and evacuation, by unit and by system (aviation and surface systems would be given separate priorities); fuel and/or ammunition; road network use by unit and/or commodity; and any resource subject to competing demands or constraints.

(5) Synchronize the concept of support with the concept of the operation.

*This chapter is from ST 101-6, chapter 6

(6) Formation comprised of units that are not part of the same organization or, as a minimum, don't have habitual relationships may not share a common TSOP and may require a more lengthy concept of support. Conversely, the more comprehensive the TSOP, the briefer the concept of support.

(7) The more complex the operation (a multiphased operation or operations larger formations conduct), the more critical the CSS synchronization.

(8) Routine, doctrinal, or constant information is not included in the concept of support. It is incorporated into the unit TSOP.

(9) Detailed and numerical data relevant to the operation, and of primary interest to unit logistic personnel, may be in another subparagraph of 4 or in the service support order.

(10) It id important to understand the next higher commander's support priorities and where your particular unit fits into those priorities.

b. CSS planners need to review the concept of support and ensure it meets the commander's needs. There are several basic questions the CSS planner should ask.

(1) Is the concept of support easily understood, and is it comprehensive and concise?

(2) Does it provide a visualization (word picture) of the overall concept of support?

(3) Is the concept of support synchronized with and does it support the concept of the operation (paragraph3)?

(4) Does it consider, and address as required, the logistic functions in the context of before, during, after (or by phase for phased operations)?

(5) Does it establish priorities of support for before, during, and after the operation, and do these priorities correlate with the prioriities established in the commander's intent, paragraph 3, and other directives from higher?

(6) It is written for the non-CSS commanders and their primary staffs and focused for supported units?

(7) Does it address all critical, non-SOP, of unusual aspects of support?

(8) Does it apply to FM 100-5 logistic characteristics?

10-3. SOURCES OF INFORMATION FOR DEVELOPING THE CONCEPT OF SUPPORT

a. The logistician actively participating in the tactical decisionmaking process facilitates the development of the concept of support. Specifically, during mission analysis, the CSS planner determines the units' current materiel and personnel posture before the operation begins. This, with the commander's priorities, determines which units and items of equipment should receive priority before the operation.

b. The wargaming and quantitative analysis portions of COA analysis highlight critical and/or unusual logistic requirements and determine support priorities for during and after the operation. By its very nature, its very nature, wargaming facilitates logistic synchronization with the concept of the operation.

c. There are numerous other information sources for the concept of support. These include--

(1) Commanders's guidance and intent.

(2) Concept of the operation.

(3) Higher headquarters concept of support, service support order or plan (if applicable), and CSS overlay.

(4) Maneuver control system screens and/or other locally generated status charts.

(5) Lessons learned data and historical perspectives to see how others successfully, or unsuccessfully, supported other similar operations.

(6) The unit's battle book.

10-4. AREAS OR ITEMS TO CONSIDER UNDER EACH LOGISTIC FUNCTION

The areas of consideration listed below are not intended as an all-encompassing checklist and may not always be applicable. They are intended, rather, as a point of departure for CSS planners developing a concept of support. Although the items are considered, they are not necessarily addressed in the concept of support unless they are critical, non-SOP, or unusual.

a. Items fix overall consideration.

(1) Support boundaries, support areas, and support relationships.

(2) Priorities of routes/events (timing).

(3) Support of attached or detached forces [cavalry, light infantry, covering force units, out-of-sector support, heavy/light force mixes, etc. (if required)].

(4) CSS actions in assembly areas, staging areas, and attack positions (if any).

(5) Programmed locations and projected displacements of logistic support units and areas.

(6) Support provided by/higher or adjacent units or other unusual support arrangements; e.g., refuel on the move (ROM), caches, Army Special Operations Forces-unique requirements, etc.

(7) CSS actions in support of security and/or deception plans and/or operations.

(8) Foreign nation support and/or host nation support arrangements.

(9) CSS task organization (CSS units' capability versus supported units' requirements).

(10) Unusual and/or critical impact of weather, terrain, and security on CSS operations.

(11) Reconstitution of units.

(12) Special considerations for joint (sister service) or combined (allied) CSS operations.

b. Items to consider before, during, and after.

(1) Manning:

Personnel status and replacement operations; e.g., weapon system replacement operations (WSRO).
Projected casualties and their effect on combat readiness.
Significant risks.
others.

(2) Sustaining Soldiers and Their Systems:

Personnel services.
Establishing or adjusting personnel and medical support priorities.
Location of medical treatment facilities.
Evacuation procedures for filled in action/wounded in action.
EPW procedures.
Friendly confinement requirements/procedures.
Finance service.
Field services.
Reconstitution.
Classes of supply I, II, IV, VI, and VIII.
Supply point of unit distribution methods.
Support from other sources.
Refugees.
Quality of life of the soldier and his family.
Significant risks.
Others.

(3) Arming:

Basic load status.
Operational loads.
RSR versus controlled supply rate (CSR).
Forecasted requirements and ammunition prestocking arrangements.
CSR suballocation.
ATP, ASP, and CSA locations (only general locations, grids on the CSS overlay).
Distribution methods.
CCLs.
Emergency resupply procedures.
Expenditure restrictions (e.g., no more than what percent of the CRS may be expended to support the covering force?).
Monitoring and reporting requirements.
EOD support,field storage requirements, and missile maintenance.
Significant risks.
Others.

(4) Fueling:

Current status (in vehicles and bulk carriers/storage).
Anticipated requirements.
En route requirements/operations.
Bulk refueling procedures.
ROM.
FARP operations.
Refuel assets.
Systems capabilities.
Distribution plan and methods.
Fuel allocations.
Displacemnt of fuel/refueling assets.
Significant risks.
others.

(5) Fixing:

Maintenance priorities (air, ground).
Anticipated work load (battle damage and maintenance failure rates/projections).
Battle damage assessment and repair procedures.
Maintenance repair timelines.
Controlled substitution or cannibalization procedures.
MST employment.
Locations/displacements of maintenance/repair part supply units.
Support from other sources.
WSRO procedures.
Distribution methods for classes VII and IX.
Evacuation procedures (could, in some cases, also include recovery procedures).
Significant risks.
Others.

(6) Moving:

Transportation requirements (logistic versus tactical).
Movement and route use priorities (units and/or commodities).
Traffic control requirements.
Transportation unit/asset displacements.
Throughput operations.
Trailer transfer arrangements or cargo transfer/terminal operations.
Alternate modes of transportation; e.g., rail, foreign nation support.
LOC security.
Supply routes.
Route maintenance requirements (effects of weather, enemy, and engineer support).
Mode selection, HET priorities, and backhaul priorities.
Support from sister services.
Significant risks.
Others.

10-5. CONCEPT OF SUPPORT FORMAT

a. The concept of support's intent is not to "boilerplate" unnecessary information. It is to think through specifically applying logistics to the concept of the operation and crafting a word picture that non-CSS commanders and their primary staffs can easily understand.

b. While each of the logistic functions are listed under before, during, and after the operation, each should be considered and then addressed only if the support arrangement is critical, non-SOP, or unusual. Additional CSS information-manning (personnel service support), sustaining the soldier (personnel services, HSS, quality of life, general supply support, and field services), arming, fueling, fixing, and moving-may be in subparagraphs or in a separate service support order.

c. Example concepts of support for brigade, division and corps are provided at appendixes B, C, and D. These are not related to any specific concept of operation but are provided to illustrate format and to provide a feel for the content of concepts of support at various levels.

* * * * *

4. SERVICE SUPPORT

a. Concept of Support. This paragraph will provide an overall visualization of the concept of support. Its intent is to provide the non-CSS commanders and their primary staffs a visualization, or word picture, of how the operation will be logistic&y supported. If the information pertains to the entire operation include it in this subparagraph. If it pertains to more than one unit, address it here and change it in the ensuing subparagraphs when needed. This could include-

- A brief synopsis of the support command mission.
- Support command headquarters and/or support area locations, including locations of next higher logistics bases, if not clearly conveyed in the CSS overlay.
- The next higher's support priorities and where the unit fits into those priorities.
- Priorities, if they remain the same throughout the operation.
- Units in the next higher CSS organization supporting our unit.
- Significant and/or unusual CSS issues that might impact the overall operation.
- Any significant risks.

(1) Before.

- Priorities:

  -By unit.
  -For personnel replacements.
  -Maintenance and/or recovery and evacuation priorities (by unit and equipment type).

- Manning.
- Sustaining soldiers and their systems.
- Arming.
- Fueling.

- Fixing.
- Moving (priorities should be by unit and commodity.

(2) During. If there are any differences or changes, state them in this paragraph. (The during period of the concept of support would also be phased if the concept of the operation is phased.)

- Priorities:

  __By unit.
  __For personnel replacements.
  __Maintenance and/or recovery and evacuation priorities (by unit and equipment type).

- Manning.
- Sustaining the soldier.
- Arming.
- Fueling.
- Fixing.
- Moving (priorities should be by unit and commodity).
- Critical decision points.

(3) After. If there are any differences or changes from the before and during periods, state them here.

- Priorities:

  __By unit.
  __For personnel replacements.
  __Maintenance and/or recovery and evacuation priorities (by unit and equipment type).

- Manning.
- Sustaining the soldier.
- Arming.
- Fueling.
- Fixing.
- Moving (priorities should be by unit and commodity).
- Reconstitution.
- WSRO.
- Preparing for future operations.

* * * * *

10-6. BRIEFING THE CONCEPT OF SUPPORT

a. The logisticians's role in the overall OPLAN/OPORD briefing is to brief the concept of support, but he must first understand the general concept of the operation and the commander's intent. This briefing facilitates communicating the concept of support to the commander and the subordinate commanders. The concept of support briefing should address the critical, non-SOP, or unusual aspects of logistic support in the context of before, during, and after and the critical aspects of the logistic functions. Doctrinal, usual, or SOP matters should not be addressed unless there is a deviation in support relationship or normal methods. The CSS planner briefs the concept of support, working through the operation from before or after. This briefing should go into greater detail than is laid out in the written concept of support.

b. Some rules of thumb for the concept of support briefing are---

(1) Tell commanders what they can expect from CSS and how many days or hours they can operate. based on materiel readiness, quantities of supplies on hand, etc. Use comman terms such as DOS or other terms that are meaningful to the commander. Avoid using technical terminology or SOP information.\

(2) Address the "culminating point" from a logistic perspective.

(3) Avoid briefing the results of extensive number-crunching that is associated with the combat service support estimate process.

(4) The briefer should not read some written product. Rather, using the CSS overlay(see appendix E) and appropriate visual aids, such as a concept of support overview matrix (see appendix H), he should show the commander how the concept of support is synchronized with and supports the concepts of the operation.

(5) The briefing should include locations of critical logistic assets, headquarters, and events.

(6) Address priorities, shifts in priorities, problem areas and solution, and critical events.

(7) Bottom line: The logistician must tell the commander what he needs to know.

NOTE: Instruction for using the concepts of support overview matrix and developing the CSS overlay are included in the following paragraphs.

c. Concepts of support briefing.

(1) Introduction (overview of the concept of support and orientation to the map, if Orientation to the map is not required if done previously by another briefer. Do not assume the commander totally knows the terrain. Focus on locating critical CSS nodes, MSRs, etc.

(2) Brief the concept of support starting with critical actions that must be accomplished before the operation and concluding with critical actions to be accomplished after the operation/preparation for future operations for each of the logistic functions (manning, arming, fueling, fixing, moving and sustaining the soldier).

(3) Identify which units have priorities for each function (this should correlate with the commanders's priorities; e.g, main efforts).

(4) Identify the next higher echelon unit providing support and/or backup support.

(5) Identify and critical shortage/problem areas for each function and solution. For example, this can be supported, but.., or it can be done but not without risk in...

(6) Identify any other CSS problem areas, arrangements, special requirements, or any other critical aspects addressed elsewhere in the briefing.

10-7. THE CSS OVERLAY

a. The CSS overlay is a graphic representation of the tactical array of logistic support areas (LSAs) and units. Ideally, it accompanies copies of the OPLAN/OPORD distributed to subordinate headquarters and is used as a graphic backdrop to the concept of support briefing.

b. The CSS overlay should include (as a minimum)---

- Location of current and proposed support areas.
- Boundaries for CSS responsibilities.
- MSRs
- Locations of major headquarters.
- Locations of CSS installations and units.
- Locations of critical resources (potable water, maintenance collection points, ATPs, MA, etc.).

c. The CSS overlay will not only depict the tactical array of CSS units/nodes, but it is also an integral part of the overall OPLAN/OPORD graphics and must be synchronized with the operations overlays.

(1) A brigade CSS overlay would include (as a minimum)-

- The BSA location and, using type nit symbols, the CSS units and headquarters located therein.
- Locations of alternate/proposed BSAs.
- The supply routes from the BSA to the logistic release points and/or maintenance collection points.
- The MSR from the DSA to the BSA.

A sample brigade CSS overlay is at appendix E.

(2) A division CSS overlay would include (as a minimum)--

- The DSA location and, using type unit symbols, the CSS units and headquarters contained therein, whether they are divisional or nondivisional.
- Locations of alternate and/or proposed DSAs.
- The MSRs from the corps rear area to the DSA and from the DSA to each BSA.

A sample division CSS overlay is at appendix F.

(3) A corps CSS overlay may have have to encompass the entire corps area of operations as well as a part of the COMMZ and, as a minimum, would depict---

- The LSAs and, using type unit symbols, the CSS units and headquarters located therein, the locations of any other critical CSS nodes not located in an LSA.
- The MRSs leading into the corps rear area from the COMMZ and the MSRs leading from the corps rear area to each DSA (or, as a minimum, to the division rear boundary) and to other critical logistic nodes.
- Locations of alternate and/or proposed LSAs.
- Location of corps CSS units operating forward of the divisional rear boundaries.

A sample corps CSS overlay is at appendix G.

10-8. USING AND COMPLETING THE CONCEPT OF SUPPORT OVERVIEW MATRIX

a. The oral concept of support briefing will allow the commander and his subordinates to visualize how the operation will be logistically sustained. The CSS planners[1] oral briefing, using the CSS overlay, is useful in communicating the concept of support to the commander. In addition, a concept matrix (see appendix H) can be used to make complex logistic concepts more easily understood. The matrix can complement the briefing. Appendix I is an example of a completed concept of support matrix.

b. The matrix's design is aligned with the concept of support format. The logistic functions are in the context of before, during, and after. For phased operations, the during portion of the matrix can be modified to reflects phases. The matrix will highlights those critical aspects of each logistic function. It can also depict other critical information such as priorities, shifts in priorities, problem areas, critical events, and other critical action. Again, the matrix is not intended to stand alone or to replace the concept of support briefing. It should complement and supplement the concept of support briefing.

APPENDIX A

GLOSSARY

A^2C^2	Army airspace command and control
AA	air assault; avenue of approach
AAR	afteraction review
AAVN	Army aviation
acq	acquisition
ACR	armored cavalry regiment
AD	air defense
ADA	air defense artillery
ADC	area damage control
AF	Air Force
AGM	attack guidance matrix
AI	air interdiction
ALO	air liaison officer
AO	area of operations
armd	armored
arty	artillery
aslt	assault
ASP	ammunition supply point
AT	antitank
ATGM	antitank guided missile
atk	attack
ATO	air tasking order
ATP	ammunition transfer point
avn	aviation
AXP	ambulance exchange point
BB	backbrief
BCC	battlefield circulation control
BDA	battle damage assessment
bde	brigade
BFV	Bradley fighting vehicle
bn	battalion
BOS	battlefield operating system
BP	battle position
BSA	brigade support area
btry	battery
C^2	Command and control
C^2W	command and control warfare
C^3	command, control, and communications
CA	civil affairs
CARS	Combat Arms Regimental System
CAS	close air support
cav	cavalry

cbt	combat
CCIR	commander's critical information requirements
CCL	combat-confugured load
CDMP	combat decisionmaking process
cdr	commander
CF	covering force
CFA	covering force area
CFL	coordinated fire line
Chap	Chaparral
CI	counterintelligence
cl	class
cmd	command
cml	chemical
CMO	civil-military operations
c o	company
COA	course of action
COCOM	combatant command
CofS	chief of staff
COFT	conduct of fire trainer
COMINT	communications intelligence
COMMZ	communications zone
COMSEC	communications security
COSCOM	corps support command
CP	command post
CPEA	concept, planing and/or preparation, execution, and assessment
CS	combat support
CSA	corps storage area
CSG	corps support group
CSH	combat support hospital
CSR	controlled supply rate
CSS	combat service support
CVI	combat vehicle identification
CVMS	combat vehicle marking system
DA	Department of the Army
DAG	division artillery group
DDMP	deliberate decisionmaking process
decon	decontamination
DISCOM	division support command
div	division
DIVARTY	division artillery
DOD	Department of Defense
DP	decision point
DPICM	dual purpose, improved, conventional munition
DS	direct support
DSA	division support area
DSP	distribution supply point
DST	decision support template
EA	electronic attack; engagement area

EC	electronic combat
ech	echelon
EEFI	essential elements of friendly information
ELINT	electronic intelligence
ELSEC	electronic security
EMP	electromagnetic pulse
engr	engineer
EOD	explosive ordinance disposal
EP	electronic protection
EPW	enemy prisoner of war
ES	electronic support
evac	evacuation
EW	electronic warfare
EWO	electronic warfare officer
FA	field artillery
FAC	forward air controller
FAIO	field artillery intelligence
FARP	forward arming and refueling point
FASCAM	family of scatterable mines
FCS	fire control section
FEBA	forward edge of the battle area
FFIR	friendly forces information requirements
fin	finance
FINCOM	finance command
fld	field
FLOT	forward line of own troops
fltbrg	floatbridge
FM	field manual
FRAGO	fragmentary order
FS	fire support
FSB	forward support battalion
FSCM	fire support coordinating measure
FSCOORD	fire support coordinator
FSE	fire support element
fwd	forward
GDP	general defense plan
GE	Germany
gear	generator
GM	guided missile
gp	group
GPS	globapositioning system
GRREG	graves registration
GS	general support
GSR	general support reinforcing
hd	helicopter
HEMTT	heavy, expanded mobility, tactical truck

HET	heavy-equipment transporter
HHC	headquarters company
HHS	health service support
HN	host nation
HPT	high-payoff target
HPTL	high-payoff target list
HQ	headquarters
HSS	health service support
HVT	high-value target
I&S	intelligence and surveillance
ID	identification
IFF	identification, friend or foe
IMRR	independent motorized rifle regiment
inf	infantry
IPB	intelligence preparation of the battlefield
J-SEAD	joint suppression of enemy air defenses
JAAT	joint air attack team
JFACC	joint force air component commander
JFLCC	joint force land component commander
KIA	killed in action
lmph	kilometers per hour
LD	line of departure
LD/LC	line of departure/line of contact
LLTR	low-level transit route
LOC	line of communication
LORAN	long-range air to navigation
LRSC	long-range survey surveillance company
LSA	logistic support area
It	light
MA	mortuary affairs
MACOM	major command
MASH	mobile army surgical hospital
MBA	main battle area
MCC	movement control center
MCP	maintenance collection point
MEA	munitions effects assessment
mech	mechanized
med	medical
MEDCOM	medical command
MEF	Marine expeditionary force
MITT-T	mission, enemy, troops, terrain and weather, and time available
MHE	materials handling equipment
MI	military intelligence
MLRS	multiple-launch rocket system

mm	millimeter
MMC	materiel management center
mnvr	maneuver
MOPP	mission-oriented protective posture
MOS	military occupational specialty
MP	military police
MRE	meals, ready-to-eat
MRL	multiple rocket launcer
MSC	major subordinate command
MSF	Mobile Strike Farce
MSNORD	mission order
MSR	main supply route
MST	maintenance support team
mtn	mountain
NAI	named area of interest
NATO	North Atlantic Treaty Organization
NBC	nuclear, biological, and chemical
NL	Netherlands
NLT	not later than
NPTT	no-power thermal target
OADR	originating agency's determination required
OB	order of battle
obj	objective
OCOKA	observation and fields of fire, cover and concealment, obstacles, key terrain, and avenues of approach
OEG	
OO	operation exposure guide
OPCOM	operational command
OPCON	operational control
OPLAN	operation plan
OPORD	operation order
ops	operations
OPSEC	operations security
OPTEMPO	operational tempo
P^2	procedural and positive
pers	personnel
PERSCOM	personnel command
petrl	petroleum-
PIR	priority intelligence requirements
PK	probability of kill
pkg	package
PL	phase line
plt	platoon
PM	provost marshal
PMCS	preventive maintenance checks and services
POL	petroleum, oils, and lubricants

PRF	pulse repetition frequency
psn	position
PSS	personnel service support
PSYOP	psychological operations
pt	point
Pw	prisoner of war
R	reinforcing
R&S	reconnaissance and surveillance
RACO	rear area combat operations
RAG	regimental artillery group
RATr	radio teletypwriter
REC	radioelectronic combat
recon	reconnaissance
regt	regiment
repl	replacement
RIPL	reconnaissance and interdiction planning line (NATO term only)
RMORD	road movement order
ROE	rules of engagement
ROM	refuel on the move
RPV	remotely piloted vehicle
RSR	required supply rate
RTCH	rough terrain container handler
S&R	surveillance and reconnaissance
SEND	suppression of enemy air defenses
sep	separate
sig	signal
SLCR	shower, laundry, and clothing repair
SOF	special operations forces
so1	signal operation instructions
SOP	standing operating procedure
SP	self-propelled
s p t	support
sqd	squad
SSORD	service support order
SSPLAN	service support plan
SSSC	self service supply center
ST	student text
STANAG	standardization agreement
STON	short ton
SUPPT	supply point
SURE	supply usage requirement estimate
svc	service
SWA	Southwest Asia
synch	synchronization
tac	tactical
TACQM	tactical command

TACON	tactical control
TAI	target area of interest
TAR	tactical air reconnaissance
TCF	tactical combat force
TD	tank division
TDMP	tactical decisionmaking process
TEWT	tactical exercise without troops
TF	task force
tgt	target
TOE	table of organization and equipment
TOW	tube-launched, optically tracked, wire-guided (missile)
TRANSCOM	transportation command
trk	truck
trp	troop
TRP	target reference point
TSOP	tactical standing operating procedure
UAV	unmanned aerial vehicle
UBL	unit basic load
UE	unit equivalent
US	United States
veh	vehicle
VGT	viewgraph transparency
vic	vicinity
WCS	weapons control status
whl	wheeled
WO	warning order
WSRO	weapon system replacement operations
XO	executive officer

APPENDIX B*

BRIGADE CONCEPT OF SUPPORT SAMPLE

Mission: O/O, 2d Bde attacks in zone to seize Obj FLOOR and destroy the 21 and 22 Mech Regts and remaining division artillery to defeat the 54th Guards Mech Div.

3a. Concept of Operation. Annex C (Operation Overlay)

O/O, TF 4-5, TF 3-32, and TF 2-32 move from TAA CLOCK via routes COAT, HANGER, and SHIRT and occupy attack positions INK, PAPER, and PEN. O/O, TF 4-5, as the main attack, attacks in zone to seize Obj FLOOR destroying two mechanized regiments and the remaining division artillery. TF 3-32 conducts a supporting attack along Axis SILVER to seize Obj BEAM and fixes lead battalions of 21 Mech Regt as TF 4-5 destroys the remaining enemy forces. TF 2-32, brigade reserve, follows TF 4-5, occupies AA PENCIL, and prepares to block any enemy penetration of PL TILE. Priorities for deep operations are to early warning of the commitment of the regiment reserves and the location of the remaining division artillery. TFs are responsible for own flank security. Bde accepts risk with no designated TCF during the operation. Upon securing their objectives, TF 4-5 moves to and occupies AA BOOK; TF 3-32 moves to and occupies AA CASE. At the conclusion of the operation, all units will be 75% strength or greater, the 54th Guards Mech Div will have been destroyed, and brigade units will prepare for further offensive operations to the east.

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4. SERVICE SUPPORT

a. Concept of Support. 52d ID (M) initial priority of support to Avn Bde, 2d Bde, 1st Bde, and 3d Me. 52d ID (M) DISCOM establishes DSA vicinity FREIDHAUSEN (NU0917). 84th MASH colocates with DISCOM in DSA and provides level III medical support throughout the operation, 211th Pers Det and 212th Fin Det provide support from current and future BSA locations. On order, 202d FSB establishes BSA vicinity GUTENTITE (NU3010) and supports 2d Bde operations. No class VII replacement items available until units reach Obj FLOOR. Bde units transport all KIAs to brigade MA collection point vicinity NUTUN (NU 295185). Cannibalization is authorized at DS level. MSR MIKE is designated as the division chemical contamination route. MSR LAMOUT remains under division control throughout the operation.

(1) Before. Period begins while units are in AA CLOCK and ends when units occupy attack positions. Primary logistics focus is improving unit combat power. Initial priority of support is to TF 4-5, TF 3-32, and TF 2-32. Priority of maintenance and evacuation is to tanks, recovery vehicles, Bradleys, and HEMTTs. Priority of movement forward is to maneuver units, class V, and class III. Priority of movement rearward is to medical, refugees, and EPWs.

(2) During. Period begins when units occupy attack positions and ends when Obj FLOOR is secured. Primary focus of logistics effort is support of units in contact and echelonment of CSS units and stocks forward. Priority of support by unit remains unchanged. Personnel replacement operations discontinued until units reach Obj FLOOR. Priority of maintenance and evacuation is to tanks, Bradleys, HEMTTs, and recovery vehicles. Forward movement priorities remain unchanged. Priority of movement rearward is to medical evacuees, maintenance evacuation, EPWs, and refugees. Ambulance exchange points established no further east than PL TILE. No aeromedical evacuation authorized east of PL FAN. Finance and field services (minus MA) are discontinued until units reach Obj FLOOR 202d FSB echelons class III/V stocks and establishes a maintenance collection point vicinity GEVERWAY (NU5025).

*This appendix is from ST 101-6, appendix B.

(3) After. Period begins after units secure Obj FLOOR and ends after units occupy AAs BOOK and CASE. Primary focus of logistics effort is reconstitution of combat units and continued echelonment of CSS assets forward. Priority of support and replacements is to TF 3-32, TF 2-32, and TF 4-5. TF 3-32 reorganizes to a minimum combat level of 85%; all others 75%. Priority of maintenance is to tanks, Bradleys, and cargo trucks. Priority of movement forward is to class IX, VII, III, and V. Priority of movement rearward remains the same. Finance and field services resume. 202d FSB establishes BSA vicinity GEVERWAY (NU5025).

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APPENDIX C*

DIVISION CONCEPT OF SUPPORT SAMPLE

Mission: O/O, 52d ID (M) attacks in zone to seize Obj QUAIL and Obj DOVE destroying the 54th Guards Mech Div lead regiments and defeating the 45th Guards Tank Div.

3a. Concept of Operation. Annex C (Operation Overlay)

O/O, brigade units depart TAA BOOK, move to and occupy attack positions, and prepare to seize objectives. 52d Avn Bde screens the division's southern flank between PL FAN and PL DESK. 52d Avn Bde and DIVARTY conduct initial deep operations to attrit 54th Guards Mech Div's DAG and command and control elements in EA CUP. Once 52d Avn Bde reaches PL DESK, 2d Bde initiates the supporting attack to seize Obj DOVE and defeat the enemy division's lead regiments. Upon 2d Bde crossing PL FOX, 3d Bde conducts the division main attack to seize Obj QUAIL destroying the enemy's division artillery and the advancing division's main body. 1st Bde, as division reserve, follows 3d Bde with priority of effort to 3d Bde, then to 2d Bde. 1st Bde occupies AA PILL and prepares to counterattack to destroy the enemy reserve if it is committed against 3d Bde allowing no enemy penetration of PL BELT. 1st Bde provides one armor TF as the division's TCF throughout the operation. When the 54th Guards Mech Div lead regiments and the 45th Tank Div's lead regiments and artillery are destroyed, 2d Bde moves to defend the division front between NU 301011 to NU 302151. 3d Bde moves to defend the division front between NU 30215 to NU 301351. Units will complete the operation at or above 65% and prepare to initiate offensive operations within 96 hours. O/O, 52d ID (M) units prepare to facilitate 209th ACR units' passage of lines to the east.

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4. SERVICE SUPPORT

a. Concept of Support. 2d Corps priority of support is to 25th AR, 52d ID (M), 53d ID (M), and 209th ACR. 16th Corps Support Group (CSG) provides DS/GS to nondivisional units in sector and GS and reinforcing DS to 52d ID (M). 52d ID (M) DISCOM establishes a DSA vicinity FRIEDHAUSEN (NU0917). 82d Med Gp locates in LSA EARTH and provides area medical support. 84th MASH and 825th Med Evac Det colocate with the DISCOM in the DSA and provide level III medical support throughout the operation. 20th Fin Bn and 184th Pers Spt Bn provide support from current and future DSA locations. Command- regulated items include barrier material and some class IX major end items. Division MA collection point located at MEUSHASEN (NU1016). Cannibalization authorized at DS level. Division accepts risk of resupply of class III(B) on MSR ROBIN between PL FAN and PL DESK. Class VII resupply not expected until units reach PL DESK. Hasty burials are not authorized. Corps maintains control of MSRs SAW and WIRE. No host nation support available east of PL FAN.

(1) Before. Period begins while units are in TAA BOOK and ends when units arrive in attack position. Primary logistics focus is improving unit combat power. Priority of personnel replacements and support initially is to 52d Avn Bde, 52d DIVARTY, 2d Bde, 3d Bde, and 1st Bde in order. Priority of movement eastward is to units, class III, and class V. Priority of movement westward is to medical, refugees, and EPWs. Priority of maintenance is to tanks, Bradleys, 5-ton tractors, 5,000-gallon tankers, and recovery vehicles. Aviation maintenance priority is to AH-64s, OH-58Ds, and UH-60s.

*This appendix is from ST 101-6, appendix C.

(2) During. Period begins while combat units are in attack positions and ends when units secure Objs DOVE and QUAIL. Primary focus of logistics effort is support of units in contact and echelonment of CSS units and stocks forward. Priority of support shifts to 3d Bde, 2d Bde, 52d Avn Bde, and 1st Bde. Replacement operations suspended until units reach PL DESK. Priority of maintenance is to tanks, Bradleys, howitzers, and MHE. Aviation maintenance priorities remain the same. Priority of movement forward is to classes III and V. Priority of movement rearward is to casualties, vehicle evacuation, EPWs, and refugees. Corps helicopter support available for emergency resupply of classes III and V. Aeromedical evacuation available west of PL BELT. Finance and field service (minus MA) operations suspended until units reach PL DESK. DISCOM echelons class III/V stocks and establishes a maintenance collection point vicinity GUTENTITE (NU3010).

(3) After. Period begins after units secure objectives and ends after units establish defense positions along PL DESK. Primary focus of logistics effort is reconstitution of combat units and continued echelonment of CSS assets forward. Priority of support and personnel replacement is to 2d Bde, 52d Avn Bde, 1st Bde, and 3d Bde. 1st Bde will reorganize to a minimum combat level of 85%, 2d Bde and 52d Avn Bde to 80%, and 3d Bde to 65%. Ground and air maintenance and evacuation priorities remain the same. Forward movement priority is to class IX, III, and V. Rearward movement priorities remain the same. DSA relocates vicinity GUTENTITE (NU3010). Finance and field services available in DSA and BSA locations.

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APPENDIX D*

CORPS CONCEPT OF SUPPORT SAMPLE

Mission: O/O, 2d Corps attacks in zone to seize Obj FAR and secure the corps' front NU 020010 to NU 301351 to destroy 45th Guards Tank Div, causing the defeat of the 7th Krasnovian Army.

3a. Concept of operation. Annex C (Operation Overlay)

This is a two-phase operation. Phase I: O/O, 2d Corps units depart TAAs and move along assigned MSRs to attack and seize assigned objectives. Initially, deep operations with Corps Avn and Corps Arty attack to destroy the 45th Guards Tank DAG in EA HEART and delay the reserve regiment as the divisions close to fight. 52d ID (M) moves along MSR MORTAR and BRICK to conduct the supporting attack in zone in the east to seize Obj QUAIL while fixing the lead enemy regiments north of PL RUG. 25th AR, the corps' main effort, moves along MSRs SAW and WIRE. After crossing PL FAN, 25th AR attacks in zone to seize Obj PHEASANT defeating the two second-echelon regiments and destroying the remaining artillery. Lead divisions are responsible for corps flank security. 53d ID (M) moves along MSRs SAW and WIRE and prepares to pass through 25th AR. 53d ID (M) initially is corps reserve with priority of commitment to 25th AR zone. 209th ACR moves along MSRs GLASS and MORTAR and prepares to pass through 52d ID (M). 209th ACR provides one squadron as the corps TCF throughout the operation. Phase I ends when corps units have successfully defeated 45th Guards Tank Div's second-echelon regiments. Phase II: Deep operations consist of Corps Avn conducting an attack in EA LIVER to delay commitment of division reserve east of PL KNOB for 6 hours. 53d ID (M) conducts a passage of lines through 25th AR, becomes the corps' main effort, and attacks along Axis BRIDGE to seize Obj FAR, and defeats the 45th Guards Tank Div reserve. 209th ACR conducts a passage of lines through 52d ID (M), and moves to and establishes a screen along PL CHAIR. 52d ID (M) becomes the corps reserve with priority of commitment to the 53d ID (M) zone. Phase II ends when the 45th Guards Tank Div's second-echelon regiments are defeated, the 53d ID (M) secures Obj FAR, and the 209th ACR establishes a screen of the corps' front along PL CHAIR (NU 020010 to NU 3011351).

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4. SERVICE SUPPORT

a. Concept of Support. 33d Army's priority of support initially is to 2d (US) Corps, 21st (US) Corps, and 1st MEF. 7th MEDCOM, 1st PERSCOM, 110th TAACOM, 4th FINCOM, 9th TRANSCOM, and 12th Petrl Gp provide GS support to 2d (US) Corps. 2d Fin Gp and 2d Pers Gp provide support from LSA VENUS and forward locations. Cannibalization is authorized at DS level. Corps medical evacuation policy is 7 days. Theater maintains control of MSRs MORTAR and BRICK throughout the operation. MSRs BOB and MIKE are corps' designated contamination routes. Chemical suits are command regulated. Host nation support will not be used east of PL BAG. Hasty burials are not authorized. Corps MA collection point initially is located in LSA VENUS.

(1) Before. Period begins while units are in TAAs and ends when 52d ID (M) crosses PL RUG. Logistics focus is on improving unit combat power and establishing stockage objectives. 2d Corps initial priority of support is to 10th Avn, 2d Corps Arty, 52d ID (M), 25th AR, 53d ID (M), and 209th ACR. 13th CSG and 83d Med Gp establish LSA MARS and provide area support with priority of support to corps units and 25th AR.

*This appendix is taken from ST 101-6, appendix D.

21st Fin Bn and 185th Pers Bn colocates with and supports on an area basis the 25th AR. 16th CSG and 82d Med Gp establish LSA EARTH and provide area support with priority of support to corps units and 52d ID (M). 22d Fin Bn and 184th Pers Bn colocates with and supports on an area basis the 52d ID (M) and 209th ACR. 14th CSG and 84th Med Gp establish LSA PLUTO and provide area support with priority of support to 10th Avn, corps units, and 209th ACR. 19th CSG and 81st Med Gp establish LSA SATURN and provide area support with priority of support to corps units and 53d ID (M). 24th Fin Bn and 187th Pers Bn colocate with and support on an area basis the 53d ID (M). 20th CSG, 25th Fin Bn, 188th Pers Bn, and 84th Med Gp establish LSA VENUS and provide area support to corps units and units passing through the area. Priority of ground maintenance and evacuation is to tanks, Bradleys, PLS trucks, and forklifts. Priority of aircraft maintenance and evacuation is to AH-64s, CH-47s, and RC-12s. Priority of movement forward is to units, class V, and class III. Priority of rearward movement is to medical, refugees, and equipment evacuation. COSCOM establishes ROM sites on/or west of PL BEAM on MSRs WIRE, BRICK, MORTAR, and GLASS. Finance and field services limited until units reach PL LEAD.

(2) During.

(a) Phase I begins when 52d ID (M) crosses PL RUG and ends when 25th AR secures Obj PHEASANT. Primary focus of logistics effort is the deep battle and the continued buildup of stocks. Priority of support is to 25th AR, 52d ID (M), 53d ID (M), and 209th ACR. Individual replacement operations discontinue until units reach PL LEAD. Personnel will be diverted to weapon system replacement site in LSA VENUS. Priority of movements and maintenance remains the same.

(b) Phase II begins when 53d ID (M) passes through 25th AR and ends when Obj FAR is secured. Primary focus of logistics effort is support of units in contact and echelonment of CSS units and stocks forward. Priority of support is to 53d ID (M), 209th ACR, 52d ID (M), and 25th AR. Maintenance priority for ground equipment is to tanks, howitzers, and Bradleys. Priority of aircraft maintenance remains unchanged. Priority of movement forward is to 53d ID (M), 209th ACR, class V, and class III. Rearward priority of movement is to medical, equipment evacuation, EPWs, and refugees. Movement on MSRs SAW and WIRE is restricted to 53d MSF; movement on MSRs GLASS and MORTAR is restricted to 209th ACR. Corps' reserve class V stocks begin to reposition vicinity BANGIUM (NU0121), and class III stocks reposition vicinity BENZENE (NU0719).

(3) After. Period begins when 53d ID (M) secures Obj FAR and ends when 209th ACR establishes a screen along PL CHAIR. Primary focus of logistics effort is reconstitution of combat units and continued echelonment of CSS assets forward. Priority of support is to 209th ACR, 52d ID (M), 53d ID (M), and 25th AR. 52d ID (M) reconstitutes to a minimum combat level of 85%; 53d ID (M), 80%; 209th ACR, 80%; and 25th AR, 75%. 2d COSCOM establishes reconstitution site vicinity NEU UPGERFIXEM (NU0820) to assist 25th AR in reconstitution effort. Ground and aviation maintenance priorities remain the same. Movement priorities forward are to classes IX, III, V, and IV. Movement priorities rearward remain the same. Corps MA collection point established vicinity LSA EARTH (NU0211). Finance and field services fully restored down to division level.

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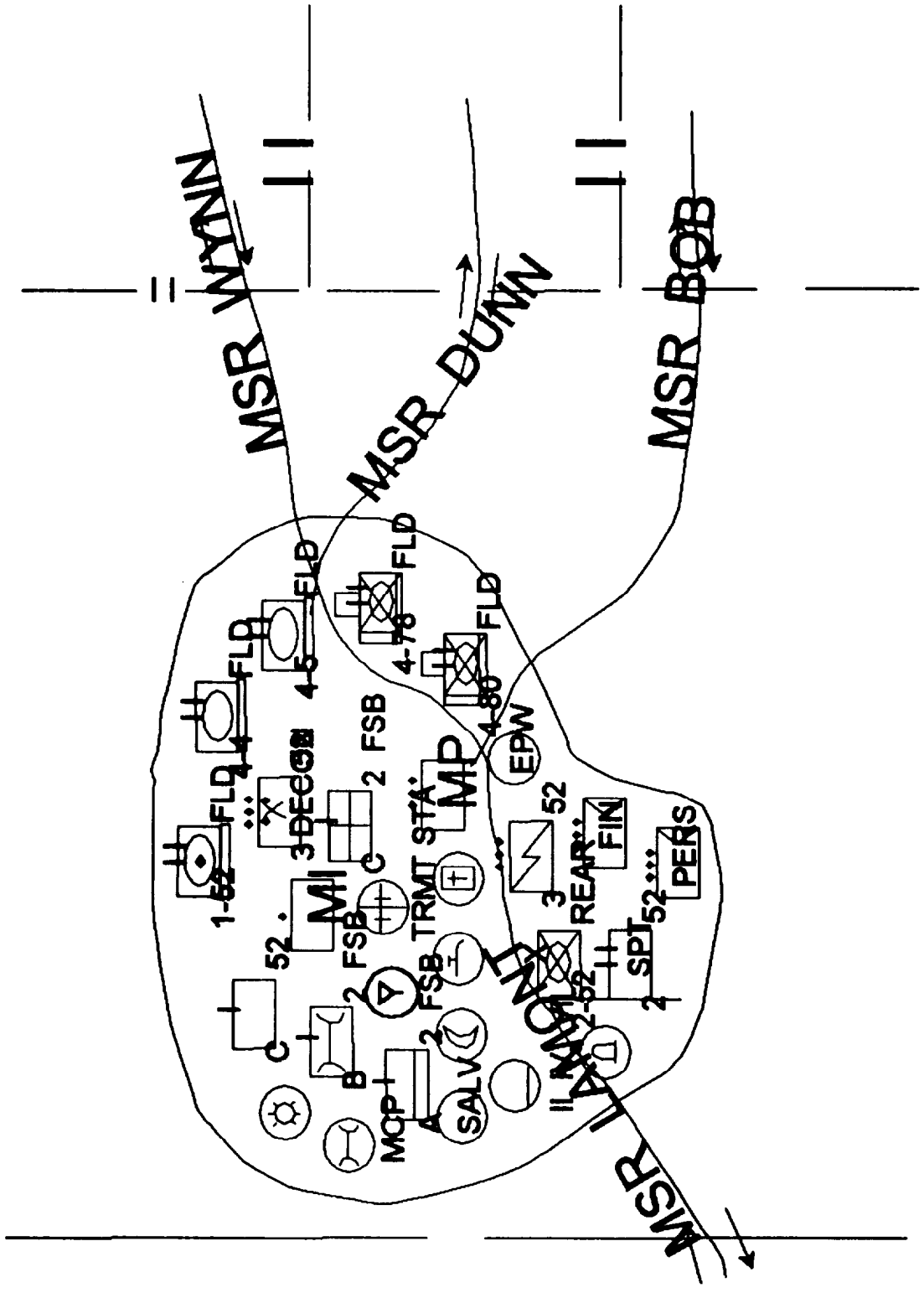
APPENDIX E*

BRIGADE CSS OVERLAY SAMPLE



*This appendix is taken from ST 101-6, appendix E.

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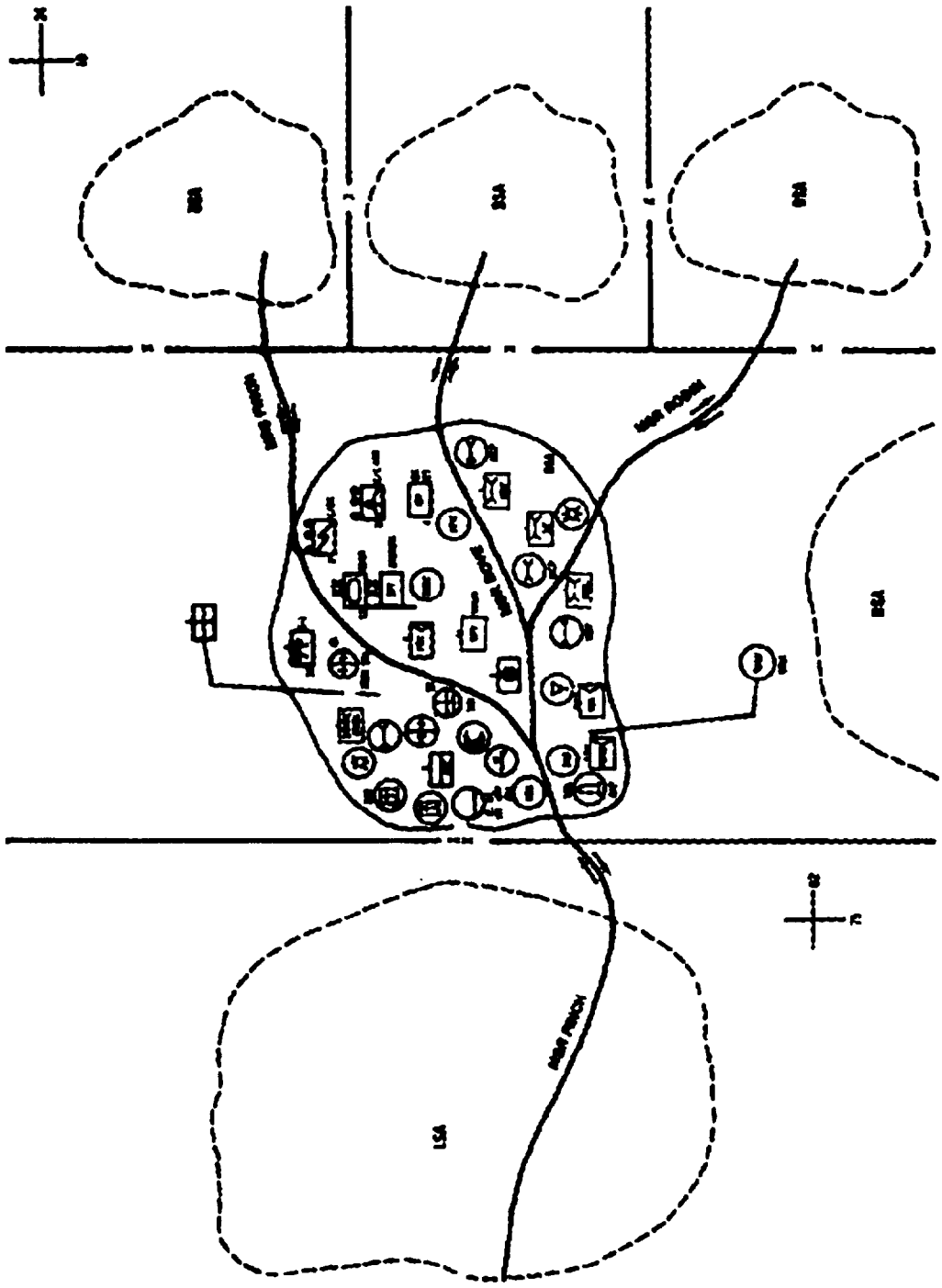
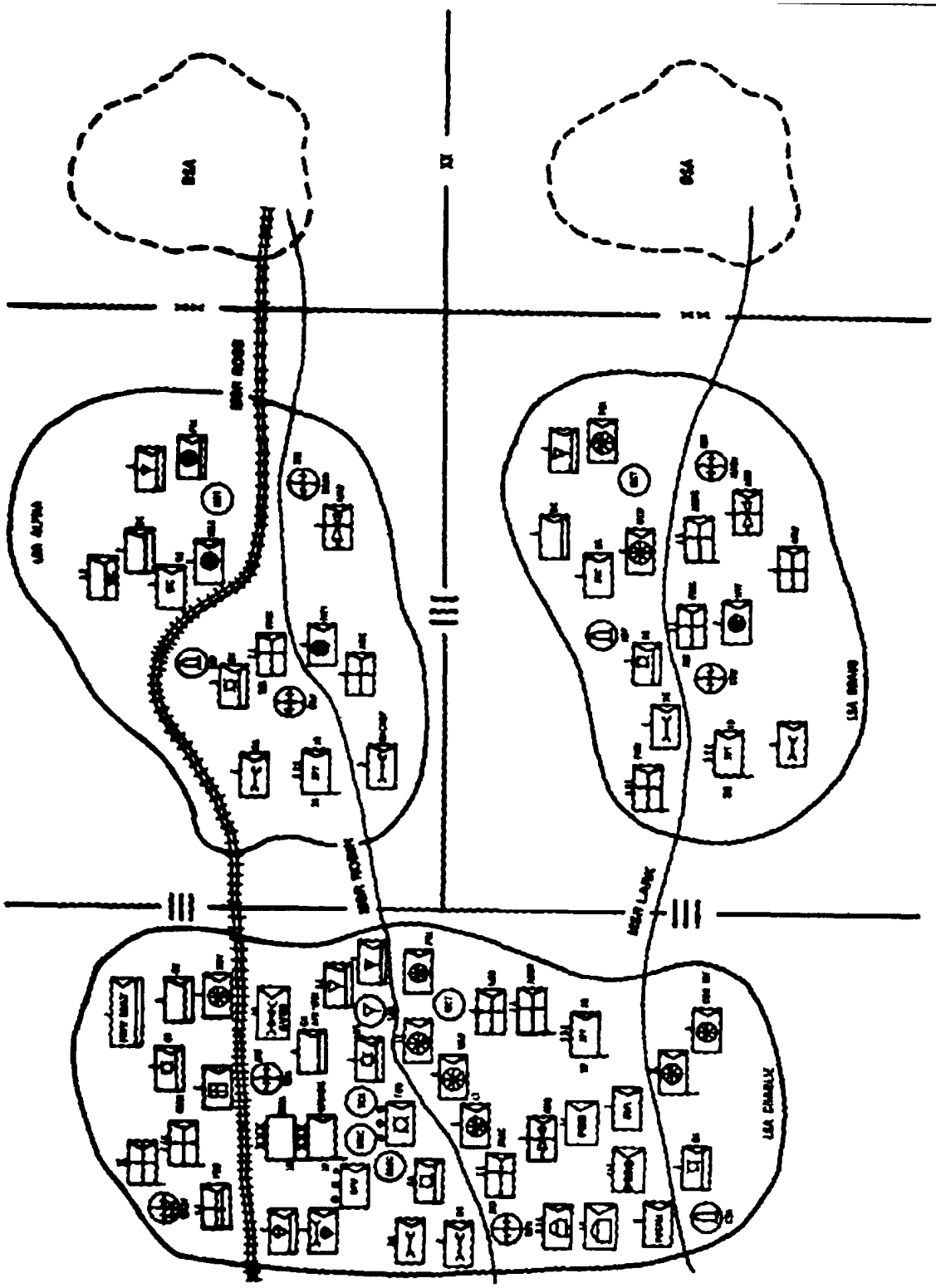


*This appendix is taken from ST 101-6, appendix F.

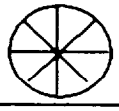
96AUG-ST1015AF



*This appendix is taken from ST 101-6, appendix G.

APPENDIX H*

CONCEPT OF SUPPORT MATRIX

MAN & SUSTAIN THE SOLDIER 	BEFORE	DURING	AFTER
ARM 			
FUEL 			
FIX 			
MOVE 			

*This appendix is taken from ST 101-6, appendix H.

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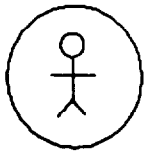
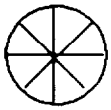
APPENDIX I*

COMPLETED CONCEPT OF SUPPORT MATRIX

MAN & SUSTAIN THE SOLDIER	BEFORE	DURING	AFTER
	Priority: 52 Avn, 3Bde, 2Bde, 1Bde	Priority: 3Bde, 2Bde, 52 Avn, 1Bde Fin, fld svcs, & rpl ops suspended until PL DESK	Priority: 2Bde, 52 Avn, 1Bde, 3Bde Fin, fld svcs, & repl ops resume vic Gutenfils
ARM 	Hellfire, 25mm, tank, ATGM, 155 DPICM	120mm HEAT, TOW, 155 DPICM; C/O CH-47 emerg resupply; stocks move to Gutenfils	155 DPICM, Hellfire, TOW, tank Replenish UBLs
FUEL 	Priority: 52 Avn, 3Bde, 2Bde, 1Bde	Priority: 3Bde, 2Bde, 52 Avn, 1Bde Stocks move to Gutenfils	Replenish UBLs
FIX 	Tanks, BFV, 5-ton trks, 5K tankers, recovery veh Avn: AH-64, OH-58D, UH-60	Tanks, BFVs, howitzers, MHE Avn priorities unchanged	Priorities unchanged
MOVE 	Forward: units, cl III, cl V Rearward: med, refugees, EPWs	Forward: cl III, V Rearward: med, veh evac, EPWs, refugees	Forward: cl IX, III, V Rearward: unchanged DSA moves to Gutenfils

*This appendix is taken from ST 101-6, appendix I.

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